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## TO THE WOMEN OF THE UNIVERSITIES AND COLLEGES:

The United States Food Administration calls you to its service. Our need is so great that we appeal to you to prepare yourselves and to enlist for the great work that must be done.

All our questions now center in food; its production, its distribution, its use, its conservation. The more you know about these things, the more valuable you will be, and the greater will be your service to humanity.

We urge you to pursue those studies which deal with food, and to train yourselves for real leadership.

The time is coming soon when the souls of men will be tried as never before. They must have the truth that will make them free. They will listen to you if you can give them that truth.

Today your country asks you to resolve to do what you can in this the hour of extreme peril to the democratic peoples of the world.

> Faithfully yours,

HERBERT HOOVER.
Washington, D. C., March 16, 1918.

This call was received by me from Herbert Hoover on May 4, 1918, and this compilation is my response.
"Thus I pay the royal debt I owe."
LEILA PENNOCK,
B.S., Earlham College.
Graduate Student Columbia University.

Dedicated to Humanity for Freedom of Body, Mind and Spirit

## Second Edition

Price, 50c

Address: Leila Pennock, Pasadena, California

## JUN 101919

## "EAT PLENTY-WISELY-WITHOUT WASTE!"

"Cooking means the knowledge of all herbs, and fruits, and balms, and spices, and all that is healing and sweet in the fields and groves, and savory in meats; it means carefulness, and inventiveness, and watchfulness, and willingness, and readiness of appliance; it means the economy of your great grandmothers, and the science of modern chemists; it means English thoroughness and French art, and Arabian hospitality; and it means, in fine, that you are to be perfectly and always 'Ladies'-loaf-givers."-Ethics of the Dust-Ruskin.

LEARN the Classifications of Food in Groups and the Proper Combinations of Foods.
RICH FOODS-Body-builders - - - - - Nitrogenous or Protein Foods
Meat Foods-Meats, dairy products, eggs (nuts)-Animal protein-Foods digested in stomach.
Meats-Fowl, fish, game, milk, cheese, eggs (nuts).
Starches-Grains, legumes, tubers, etc.-Vegetable protein. Foods digested in mouth and intestine. Whole grain foods-barley, buckwheat, corn, oats, rice, etc.
Dried beans, peas, lentils, peanuts, chestnuts.
Potatoes, Irish and sweet, yams (pumpkin, squash, bananas).

FATS-Neutral Foods
Hydrocarbonaceous Foods
Fats-Animal and Vegetable.
Butter, margarine, cream, drippings, lard, suet, bacon.
Salad oils, cotton seed, cocoanut, maize, olive and peanut oils.
Almonds, beechnuts, hickory nuts, pecans, walnuts, ripe olives.
SUGARS plus Mineral Salts - - - - - - - - Carbohydrates
STARCHES-Nature's richest storehouse.
Whole grain foods-barley, buckwheat, corn oats, rice, rye wheat.
Dried beans, peas, lentils, peanuts, chestnuts.
Potatoes, Irish and sweet, yams (pumpkin, squash, bananas).
VEGETABLES-Nature's greatest harmonizing medium.
Non-Starchy-Cooked.
Raw or Salad.
Seeds-Green corn, string beans, wax beans, peas.
Fruits-Cucumbers, squashes, egg-plant, melons, tomatoes.
Flowers-Artichoke (French), caulifower.
Leaves-Lettuce, romain, endive, dandelion, mustard, watercress, cabbage, Brussels sprouts.
Stems-Asparagus, celery, rhubarb.
Bulbs-Onions, leeks.
Roots-Beets, carrots, parsnips, turnips.
Tubers-Potatoes, Irish and sweet, yams, peanuts.
sUGARS-True Sugars, Honey and Sweet Fruits-the sweetest of sweets.
Ripe raw apples, grapes, figs, oranges, rhubarb, meions.
Apples, apricots, currants, dates, figs, prunes, raisins (dried).
Honey, molasses, syrup (cane, corn, maple), sugar (beet, corn, maple).
Jams, jellies, marmalade, preserves.
SOUR OR ACID FRUITS AND VEGETABLES.
Apples, apricots, berries, cherries, currants, figs (fresh).
Grapes, grapefruit, lemons, oranges, peaches, pears, plums.
Cabbage, leeks, onions, tomatoes.

To plan your meals, take:
One of the meat, foods from Group 1, or, One of the starches from Group 3. Make this the basis of the day's food. Then plan breakfast and lunch by this: For instance, if the main dish at dinner be meat and its proper combinations, let breakfast be upon this same basis, and lunch of starch, vegetables and fats; or, if the main dish at dinner be from the starches, vegetables cooked and raw, and fats, let the breakfast be selected after this same plan, with lunch from Group 1 with its harmonious foods. The body relishes a decided change; thus all the digestive organs are brought into activity alternately, and renewed vigor is the result.

## REMEMBER TO COMBINE

One of the meat foods-Group 1.
One or more cooked non-starchy vegetables-Group IV (1).
One or more raw salad vegetables-Group IV (2)-leafy vegetables.
One fruit-ripe, raw fruit best.
One sweet fruit-Group V-or
One sour or acid fruit-Group VI.

REMEMBER—Starches combine perfectly only in this manner:
One of the starchy foods-Group III.
One or more cooked non-starchy vegetables-Group IV (1).
One or more raw salad vegetables-Group IV (2)-leafy vegetable.
One or more fats-Group II.
This simple manner of planning meals saves time and money, and builds for health, happiness and effective service-success in life.

# "Blest be the feasts, with simple plenty crowned, <br> Where all the ruddy family round <br> Laugh at the jests or pranks that never fail,-" <br> -Goldsmith. 

## breakfast-Egg, Toast, Fruit, Drink.

Egg-One coddled; break in pan; pour down side of pæn one quart hot water, not boiling; cover, let stand from two to five minutes, as desired. Season, salt and butter
Toast-Two thin slices, any kind of stale bread. Cut and let dry perfectly the day before using. Brown clear through in hot oven. This dextrinizes the starch; when chewed thoroughly the starch is changed to sugar- $5 \%$ is digested in the mouth and $95 \%$ digested in the intestines. This first part of the action-chewing-plays a most important part, as it is in the mouth the fundamental change is made for complete digestion. Butter and moisten with a little water. Do not soak the toast. Toast prepared in this manner is a neutral food. It may be used with any combination.
Prunes-Five stewed. Wash and rinse through several waters one pound of prunes. Cover with plenty of cold water; let soak over night; stew in this same water until tender over a very slow fire; add more water if necessary. Fruit cooked in this manner is sweet and wholesome. No SUGAR.
Drink-One or two cups (hot or cold) water best-after the meal Egg-protein-for growth and repair.
Toast-dextrinized starch, sugar-for heat, energy and bulk.
Prunes-sugars and mineral salts-regulating food.
Water-best digestive aid-regulating agency.
Double the breakfast portions if a hard day's work lies before you.
DINNER-Chicken, Carrots, Corn, Asparagus, Salad, Fruit.
Salad-One slice of pineapple (ripe or canned) on lettuce leaf, berry in center.
Chicken-Three pounds; clean and wash. Place in roaster on rack to keep meat out of water. Add one pint boiling water and place in hot oven twenty minutes, then keep moderate fire for one and one-half hours-depends on the age of fowl. Baste often as this keeps meat from drying out. After basting the last time, season to suit the tastes of your family. Cut and serve with garnish of parsley. Vegetable dressing if you prefer it.
Carrots-Wash with brush, and rinse. Pour over carrots just enough hot water to cook; bring to boiling point, keep at this temperature until tender and liquid all gone. Never pour water from vegetables unless you wish to use it for clear soup. In so doing much of the valuable mineral salts are lost. How many cooks would pour the water off the tea and save the leaves? You have the same result when the water from the vegetables goes down the sink. Season, add butter and salt when vegetables are done.
Corn-on-cob-Remove husks and silk and wash. Drop into hot water for fifteen minutes. Add a teaspoonful salt five minutes before taking from the stove. Serve with butter and salt.
Asparagus-Clean and wash. Cook whole. Place in tall pan, bottoms down; the tough stocks cook nicely while the tender tops are steamed. Remove from fire, add butter and salt. Serve on lettuce. All water from vegetables should be saved for soup stock.
Celery-Clean, wash, cut in quarters, place where it will be crisp and cold when ready to serve. Onefourth bunch for each person.
Fruit-In season. Fresh, ripe, rich, RAW fruit, thoroughly cleansed and cooled.
Drink-One or two cups (hot or cold)-WATER best-after the meal is finished.
Chicken-protein and fat-builders of new tissues and heat.
Carrots, Corn, Asparagus-sugars, starch, mineral salts-for energy, regulating food, and bulk.
Salad-sugars and mineral salts-gives energy, a regulating food.
Fruit-sugars and mineral salts-gives energy, ar regulating food.
Water-best digestive aid-a regulating agency.
SUPPER-Nuts, Apples, Any RIPE Raw fruit, Drink.
Nuts-Six or eight nuts-thoroughly chewed.
Apples-One good sized ripe raw apple-skin and all.
Drink-Water after eating.
Nuts-fats, some protein-heat, growth and repair.
Fruit-sugars, mineral salts-energy and regulating food.
Water-digestive aid.
Popcorn-little butter and salt with nuts or popcorn and whipped cream-a favorite Sunday evening meal for winter. Whitter's "Corn Song" and readings from "Snowbound" for a relish.

## MEAL PLAN FOR THE DAY-

Dinner-
Meat Foods our basis.
One Meat Food-Chicken.
One or more Non-Starchy Vegetables-Carrots, corn-on-cob, asparagus.
One or more Salad Raw Vegetables-Lettuce, celery.
Fruit-Pineapple, strawberries,

## Breakfast-

One Meat Food-Egg.
One or more Sugars-Toast, golden brown through, prunes
Drink-Milk or water.

## Supper-

One Meat Food or Fat-Nuts.
One Fruit-Apples.
Drink-Water or chocolate.
REMEMBER: Each person is a law unto himself. We must study our own individual cases. When raw salad vegetables are served it is best to use cooked fruit, or when raw fruit is served it has proven best to use cooked leafy vegetables, saving all juices and serving an equal quantity to each person.

## MEAT FOODS OR PROTEINS

## GROUP I-PROTEIN OR MEAT FOODS-RICH FOODS

With one of the Meat Foods combine-
One or more non-starchy vegetables, cooked.
One or more salad-raw vegetables and cooked left-overs.
One acid fruit in season-ripe, fresh, raw fruit best.

| GROUP I GROUP IV |  |
| :---: | :---: |
| MEAT FOODS | VEGETABLES |


| Non-Starchy | Salad |
| :--- | :--- |
| Artichokes, Jerusalem | Artichoke, French |
| Asparagus | Asparagus |
| Beets | Beets, small |
| Brussels Sprouts | Cabbage |
| Cabbage | Carrots, very small |
| Carrots | Cauliflower |
| Cauliflower | Celery |
| Celery | Chili pepper |
| Chayotes | Chicory |
| Corn, green | Chinese cabbage |
| Corn, canned | Chives |
| Cornon cob | Cucumber |
| Dandelion | Dandelion |
| Eggplant | Endive |
| Kale | Garlic |
| Kohlrabi | Greens- |
| Leeks | Beet tops |
| Lettuce | Turnip tops |
| Mushrooms | Sour or narrow dock |
| Mustard | Horseradish |
| Okra | Kale |
| Onions | Lettuce |
| Parsley | Mustard |
| Parsnips | Mints |
| Peas, green | Nasturtiums, stems, |
| Peas, canned | leaves, flowers |
| Rutabaga | Olives, ripe |
| Salsify (oyster plant) | Onions, young, raw |
| Spinach | Parsley |
| String beans | Peppers |
| Summer squash | Romain |
| Swiss chard | Radishes |
| Chinese cabbage | Spinach |
| Tomatoes | Sorrel |
| Turnips | Swiss chard |
| Wax beans | Tomatoes |
|  | Turnips, small |
|  | Water cress |
|  |  |

## Dairy Products

Buttermilk
Clabber milk
Skim milk
Whole milk
Malted milk
All kinds of cheese
American cream cheese
Cottage cheese

## Nuts

Almonds
Brazil nuts
Butternuts
Cocoanut
Filbert
Hickorynut
Pecans
Pignolia
Pinenuts
Sabine
Walnuts, Black, English

GROUP V

```
SWEET FRUITS-
DRIED
```

Apples
Apricots
Currants
Dates
Figs
Prunes
Raisins
Jams
Jellies
Marmalade
Preserves
Honey
Rhubarb
Oranges
Apples
Grapes
Grapes

GROUP VI
SOUR OF ACID FRUIT
Apples
Apricots
Aprries, all kinds
Cherries
Currants
Curra
Figs, fresh
Grapes
Grapefruit
Leeks, acid vegetable
Lemons
Lemons
Loquats
Loquats
Orange
Onions, acid vegetable
Peaches
Pears
Persimmons
Pineapple, fresh
Plums
Plums
Pomegranate
Quince
Tomato, acid vegetable

# FOOD GROUP II 

## "Man's rich with little were his judgment true; <br> Nature is frugal and her wants are few- <br> These few wants answered, bring sincere delights; <br> But fools create themselves new appetites."

-Edward Young.

BREAKFAST-One Pint of Milk, Fruit.
Fruit-In season, served unsweetened-the rich, ripe, raw fruit.
Milk-Whole milk, hot or cold, as preferred.
Fruit-sugars and mineral salts-give energy and act as regulating agent. Milk-protein, fats and sugars-for growth and repair, heat and energy.

LUNCH-Cheese, Tomatoes, Lettuce.
Cheese-Prepare grated cheese, three tablespoonfuls an ample helping.
Tomato-Wash and slice one good sized tomato.
Lettuce-Wash and rinse thoroughly one head of lettuce; set in open window to crisp. Arrange on individual plates one-half head lettuce, place on this one sliced tomato, sprinkle the whole with three tablespoons of the grated cheese.
Drink-Hot or cold.
Cheese-protein, fats and sugars-builds new tissues, gives heat and energy.
Tomato-Mineral salts-regulating agency.
Lettuce-mineral salts and cellulose fiber-regulating agent, and bulk.
Water-best digestive aid.

DINNER-Potatoes, Beets, Spinach, Radishes, Ice Cream and Nuts.
Potatoes-Wash, scrub with a brush, rinse medium sized potatoes; pierce with a fork several places so all moisture may escape. Bake in medium hot oven. Remove from skins, cutting lengthwise, mash, season, beat up light, return to skin, brown in oven.
Beets-Wash with brush and rinse, cook from one-half to two hours. according to the age and locality grown. Pour cold water over beets to remove skins, then chop or dice, add seasoning and butter.
Spinach-Wash and rinse carefully through two waters; place over slow fire; allow to simmer onehalf hour in its own juice. Season with butter and salt. Serve with sliced button-radishes, garnishing the dish. To cook in double boiler or steam is best. All juices of vegetables should be saved and served or used as soup stock.
Radishes-Clean carefully, serve with spinach or on lettuce leaves.
Ice Cream and Nuts-An ample serving, over which sprinkle one tablespoonful nuts.
Potatoes-starch, sugar and fats-for heat and energy.
Beets-starch-sugars, fats-for heat and energy.
Radishes-sugars and mineral salts-heat, energy and regulating agent.
Ice Cream-protein, fats and sugars-for growth and repair, heat, energy.

## MEAL PLAN FOR THE DAY-

Dinner-Starch Food our basis.
One Starchy Food-Potatoes.
One or more Non-Starchy Vegetables-Beets.
One or more Salad Vegetables-Spinach, radishes.
One or more Fats-Butter, ice cream, nuts.

Breakfast-
One Fruit-Ripe fruit in season.
One Meat Food-Milk.

Lunch-
One Meat Food-Cheese.
One Acid Vegetable-Tomatoes.
One Salad Vegetable-Lettuce.
Remember: When potatoes are baked, a hard-boiled egg may be served with the spinach. Place eggs in pan of cold water, allow them to come to the boiling noirt, keep at this temperature one-half hour-do not boil. Eggs cooked in this manner are as easily digested as soft-boiled eggs.

## GROUP II—FATS

Fats combine with Starchy Foods-Group II.
One or more cooked non-starchy vegetables-Group IV (1). One or more raw salad vegetables-Group IV (2).
Fats combine with
One or more cooked non-starchy vegetables-Group IV (1). One or more raw salad vegetables-Group IV (2). One sweet fruit-Group V.
Fats combine with One or more cooked non-starchy vegetables-Group IV (1). One or more raw salad vegetables-Group IV (2). One sour, acid fruit and one acid vegetable-Group VI.

GROUP II
FATS
Animal Fats
Butter
Margarine
Oleomargarine
Drippings
Lard
Bacon
Vegetable Oils
Salad oils
Cotton-seed
Cocoanut
Maize
Olive
Peanut
Sesame-seed
Nuts
Almonds
Beechnuts
Hickory nuts
Pecans
Walnuts
Ripe olives
Avocado pears
Fat Meats
Beef
Chine
Duck
Goose
Ham
Spare-ribs
Ice cream, plain
Ice cream, with nuts

GROUP IV
VEGETABLES
Non-Starchy
Artichokes, Jerusalem Asparagus Beets
Brussel sprouts
Cabbage*
Cabliflower
Carrots
Celery
Chayotes
Corn, green
Corn, canned
Dandelion
Egg-plant
Kale
Kohlrabi
Leeks*
Lettuce
Mushrooms
Mustard
Okra
Onions*
Parsley
Parsley
Parsnips
Peas, cannea
Rutabaga
Salsify (oyster plant)
Spinach
String beans
Summer squash
Swiss chard
Chinese cabbage
Tomatoes*
Turnips
Wax beans
Lima beans
*Acid Vegetable.

## GROUP VI

FRUITS
Sour or Acid
Apples
Apricots
Berries, all kinds
Cherries
Currants
Dates
Figs, fresh
Grapes
Grapefruit
Leeks (acid vegetable)
Lemons
Limes
Loquats
Nectarines
Orange
Onions (acid vegetable)
Peaches
Pears
Persimmons
Pineapples
Plums
Pomegranate
Prunes,fresh raw
Quince
Tomato (acid vegetable)

> GROUP V

Sweet Fruits-Dried
Apples
Apricots
Currants
Dates
Figs
Prunes
Raisins
Raisins
Jellies
Marmalade
Preserves
Honey
Rhubarb
Oranges
Apples
Grapes
Melons

Read pages 20 and 21.

# "The ancient Fathers lived on frugal fare- <br> Nor had they palates less refined than ours. <br> The feasts we spread upon our tables fair <br> Our frames enfeeble and reduce our powers." 

"Many things sweet to taste prove in digestion sour."
-Shakespeare

BREAKFAST-Oatmeal Muffins, Butter, Chocolate.
Muffins-Measure two teaspoons baking powder, place in sauce dish and set in open window, where it may get a good airing. Beat one egg, to which add one-half teaspoonful salt and two tablespoonfuls maize oil, two tablespoonfuls sweetening if preferred; then sift whole grain meal and baking powder together several times, add to other ingredients, beat up quickly. Place in wellgreased, heated gem pans and bake in a hot oven twenty minutes. Serve with butter.
Drink-Chocolate. Blend one teaspoonful chocolate or cocoa and one teaspoonful sugar with onehalf cup hot water, add a bit of salt, boil ten minutes, add one-half cup rich milk, let heat again (not boil). Serve.

Oatmeal-starch SUGARS, protein, fats-for tissue building, heat and energy.
Butter-fats-supply heat and energy.
Chocolate-protein, fats, sugars-for growth and repair, heat and energy.
DINNER-Rabbit, String Beans, Corn, Salad, Fruit.

Rabbit-Clean and wash, cut up, brown each piece in a piping hot frying pan. Place in pan with a cup of hot water, cover tightly and bake until tender. Baste often; season when done-ten minutes before serving. Garnish with parsley and two or three carrots that have been steamed over beans. All the rich juices should be served with meat-no thickening added.
String Beans-Wash, string and break into inch pieces. Cover with warm water, let come to a boil, stew slowly one hour-unless quite old. Season when done.
Corn-Cook on cob, scallop or stew, suiting the tastes of your family.
Salad-Lettuce, one-half head, four ripe olives, tablespoonful diced carrots, simple dressing.
Fruit-Ripe, raw fruit in season.
Pabbit-protein, fats-for building new cells and tissues, and heat.
String Beans-starch sugars, mineral salts and cellulose fiber-energy, regulating agent and bulk.
Corn-sugar and fats-heat and energy.
Lettuce-mineral salts, and bulk-regulating agent.
Olives-fats and mineral salts-heat and regulating properties.
Carrots-sugars-supplying heat and energy.
Fruits-sugars, mineral salts and arids-gives energy and aids in all dikestive processes.

LUNCH-Rice, Cream, Spinach, Beets.
Rice-Wash one cup unpolished rice, drop it slowly into one quart boiling water so water will not stop boiling. Let cook for twenty minutes. Drain in collander or strainer, saving all this water for soup. Wash with cold water. Add rice to one pint rich, sweetened milk, a teaspoonful of salt and dash of nutmeg. Place in oven; cook until thickens. Serve cold with whipped cream.
Spinach-Pick and wash through several waters. Cook as before giren, page 6.
Beets-Dice any left-over vegetable and serve with spinach.

> Rice-starch-SUGARS, fat-gives heat and energy.
> Spinach-mineral salts and bulk-a regulating agent.
> Beets-starch-SUGARS, mineral salts,-gives heat and a regulating agent.

## MEAL PLAN FOR THE DAY-

Mixed Foods (whole grain foods and meats our basis).

## Breakfast-

One Starch Food-Corn muffins.
One or more Fats-Butter, cream
Drink.

## Dinner-

One Meat Food-Rabbit.
One or more Non-Starchy Vegetables-String beans, corn (green).
One or more Salad Vegetables-Lettuce, olives (ripe), carrots.
One Fruit-In season.
Lunch-
One Starch Food-Rice (unpolished).
One or more Non-Starchy Vegetables-Spinach, beets.
One Fat-Cream.
Pure Whole Grain Products may be found in every city.
Read "Starving America," by A. W. McCann. Doran Pub., New York. \$1.50.

## GROUP III-STARCH

```
Combine-
    One starchy food.
    One or more non-starchy vegetables, cooked.
    One or more salad vegetables.
    One or more fats.
```

STARCHY FOOD
NON-STARCHY VEGE. SALAD VEGETABLES

Barley
Buckwheat
Corn meal
Corn flour
Corn starch
Hominy
Kaffir corn
Macaroni
Oats, rolled
Oxtmeal
Popcorn
Potato flour
Rice flour
Rye
Sago
Tapioca flour
Whole wheat
Wheat flour
Graham flour
Whole wheat flour
Breads
Cakes
Pastry
Puddings of grain flours
Dextrinized foods
Chestnuts, roasted
Corn flakes
Grapenuts
Toasted corn biscuit
Peanuts, roasted
Shredded wheat
Zweibach
Triscuits
Waffles, crisp
Beans, dried
Peas, dried
Lentils, dried
Peanuts, peanut butter
Chestnuts
Potatoes, Irish
Potatoes, sweet
Yams
Squash
Bananas

## TABLES

Artichokes
Asparagus
Beets
Brussel sprouts
Cabbage*
Carrots
Cauliflower
Celery
Chayotes
Corn, green
Corn, green
Corn, on cob
Dandelion
Egg plant
Kale
Kohlrabi
Leeks*
Lettuce
Mushrooms
Mushroon
Musta
Okra
Onions*
Parsley
Peas, green
Peas, canned
Salsify-oyster plant
Spinach
String beans, small
Summer squash
Swiss chard
Chinese cabbage
Tomatoes*
Wax beans

## Asparagus

Cabbage
Carrots, very small
Cauliflower
Celery
Chili pepper
Chicory
Chives
Cucumbers
Dandelion
Endive
Endive
Garlic
Greens-
Beet tops
Turnip tops
Sour or narrow dock
Horseradish*
Kale
Lettuce
Lettuce
Musta
Mint
Nasturtiums-stems,
leaves, flowers
Olives, ripe
Onions, young, raw
Parsley
Peppers
Radish
Romain
Romain
Sorrel
Swiss chard
Tomatoes*
Turnips, small
Watercress

FATS
Animal Fats
Butter
Cream
Margarine
Oleomargarine
Drippings
Lard
Suet
Bacon
Vegetable Fats
Vegetable oils
Salad oils
Cotton seed oil
Cocoanut oil
Maize oil
Olive oil
Peanut oil
Sesame seed oil
Nuts
Almonds
Beechnuts
Hickory nuts
Pecans
Walnuts
Ripe olives
Avocado pears
Ice cream, plain Ice cream and nuts
*Acid Vegetables. Never use with Starches-Group III-Rich Starchy Foods.
Read pages 22 and 23.

# FOOD GROUP IV 

"Nothing's small!<br>No lily-muffled hum of a summer bee,<br>But finds some coupling with the spinning stars;<br>No pebble at your feet, but proves a sphere;<br>No chaffinch, but implies the cherubim,<br>Earth's crammed with heaven, -<br>And every common bush afire with God."<br>-Mrs. Browning.

BREAKFAST-Egg, Leafy Vegetable, Fruit, Milk.
Egg-Soft-boiled, coddled 'as given on page 4), or hard boiled. Place in pan of cold water, let come to a boiling point and keep at this temperature for thirty minutes; remove from stove, place in cold water for a few moments, then the shells are removed with no difficulty. Serve with endive, romain, lettuce or parsley
Fruit-In season, in combination with salad or alone.
Drink-Glass of milk, natural temperature, luke-warm or cold.
Egg-protein and fat-for growth and repair.
Leafy Vegetable-valuable mineral salts-regulating food.
Fruit-sugars and mineral salts-energy and regulating agency.
Milk-protein, fats, sugars and minelal salts-a perfect food; builds tissues, supplies heat, gives energy and valuable mineral salts.

LUNCH-Muffins, Butter, Celery, Drink.
Muffins-Barley and tapioca flour-half and half-using your best muffin recipe. Serve with butter. Celery-Wash thoroughly, cut in quarters, which is a serving for each person.
Drink-Hot or cold-water best, after the meal.
Muffins-starch-SUGARS, fats, mineral salts-heat, energy and regulating food.
Butter-fat-supplies heat.
Celery-mineral salts-regulating agent.
Water-best digestive aid.

DINNER-Soup, Carrot-loaf, Peas, Spinach, Fruit.
Soup-Dice two carrots, two potatoes, two onions; add three pints cold water; cook until tender; add some of the shredded celery leaves and any extra liquid from the spinach; season to taste. Serve piping hot.
Carrot-loaf-Two cups ground carrots, one cup chopped raisins, one cup chopped nuts, one egg, two small onions minced fine (or celery), two tablespoonfuls potato flour, season to taste. Bake in hot oven thirty minutes. Baste often.
Spinach-Wash carefully through two waters; steam. Serve in its own juices with butter and salt. Peas-Wash, shell, add sufficient water to cook; season when done.
Fruit-In season-berries or fruit.
Strawberry shortcake may be used in place of fruit.
Soup-starches, SUGARS, mineral salts-energy and regulating agency.
Carrot-loaf-starches, SUGARS, mineral salts-heat, energy and regulating agent.
Spinach-fat and mineral salts-supplies heat, energy and assists in all vital processes.
Fruit-SUGARS and mineral salts-gives energy and aids digestion.

## MEAL PLAN FOR THE DAY-

With mixed basis.

## Dinner-

One Starchy Food-Carrot-loaf, potatoes.
One or more Non-Starchy Vegetables-Carrots, onions.
One or more Salad Vegetables-Spinach, celery.
One Fruit-In season.

Breakfast-
Meat Foods-Egg and milk.
One Salad Vegetable-Leafy vegetable.
Fruit-In season.

Lunch-
One Starch-Barley muffins.
One fat-Butter.
One Salad Vegetable-Celery.

## VEGETABLES

## VEGETABLES

Plants-Grains, Veget bbles and Fruits-hold the center place in all food combinations. They combine with all the food groups. The plants are Nature's great solvent factors-the harmonizing medium in the perfect digestion and assimilation of all our foods. This group, in the form of seeds, fruits, flowers, leaves, stems, bulbs, roots or tubers, should play a large part in our daily meal planning. All food groups and perfect combinations are shown on pages 16 and 17 .

## NON-STARCHY VEGETABLES

Artichokes, Jerusalem
Asparagus (B-3.6)
Beets (B-23.6)
Brussel sprouts
Cabbage* (B-18)
Carrots (B-24)
Cauliflower (B-17.4)
Celery (B-42.2)
Chryotes
Corn, green (A-1.8)
Corn, canned
Corn, on cob
Dandelion
Egg plant
Kale
Kohlrabi
Leeks*
Lettuce (B-38.6)
Mushrooms (B-8.9)
Mustard
Okra
Onions* (B-3.1)
Parsley
Parsnips (B-18.2)
Peas, green (B-1.2)
Peas, canned
Salsify (oyster plant)
Spinach (B-113)
String beans,
small (B-13)
Summer squash
Swiss chard (B-41.1)
Chinese cabbage
Tomatoes*
Turnips (B-7)
Wax beans (B-11.5)
Lima beans ( $\mathrm{B}-12$ )

RAW SALAD

## VEGETABLES

Artichokes, French
Asparagus (B-3.6)
Cabbage* (B-18)
Carrots, very
small (B-24)
Cauliflower (B-17.4)
Celery (B-42.2)
Chili pepper
Chicory
Chives
Cucumbers (B-45.5)
Dandelion
Endive
Garlic
Greens-
Beet tops
Turnip tops
Sour or narrow dock
Horseradish*
Kale
Lettuce (B-38.6)
Mustard
Mint
Nasturtiums-stems, leaves, flowers
Olives, ripe ( $\mathrm{B}-18.8$ )
Onions, young,
raw (B-3.1)
Parsley
Reppish (B-9.8)
Romain
Spinach (B-113)
Sorrel
Swiss chard (B-41.1)
Tomatoes* (B-24.5)
Turnips, small (B-7)
Watercress

FATS
Animal Fats
Butter
Cream (B-.3)
Cream (B-
Oleomargarine
Animal fats
Drippings
Lard
Suet
Bacon (A-0.8)
Vegetable Oils
Salad oils
Cottonseed oil
Cocoanut oil
Maize oil
Olive oil
Peanut oil

Nuts
Almonds (B-1.8)
Beechnuts
Hickory nuts
Pecans
Walnuts
Ripe olives (B-18.8)
Avocado pears
Ice cream, plain
Ice cream and nuts

STARCH
Barley (A-2.9)
Buckwheat (A-2)
Cornmeal (A-1.5)
Corn flour
Corn starch
Hominy
Kaffir corn
Macaroni
Oats, rolled (A-3)
Oxtmeal (A-3)
Popcorn
Potato flour
Rice flour (A-2.7)
Rice (A-2.7)
Rye
Sago
Tapioca flour
Whole wheat (A-3)
Wheat flour (A2.7)
Graham flour
Whole wheat flour (A-3.3)
Breads
Cakes (A-2)
Pastry
Puddings of grain flours
Dextrinized foods
Chestnuts, roasted
Corn flakes
Grapenuts
Toasted corn biscuit
Peanuts, roasted 'A-7)
Shredded wheat (A3.3)
Zweibach
Triscuits
Waffles, crisp
Beans, dried (B-5)
Peas, dried (B-1.5)
Lentils, dried (A-1.5)
Peanuts, peanut butter
Peanuts, peanut
Chestnuts (B3.2)
Potatoes, sweet (B-5.4)
Yams
Pumpkin (B-5.7)
Squash B(6.1)
Bananas (B-5.6)
*Acid Vegetables. Never use with Starches-Group III-Rich Starchy Foods.
A represents so many points for acid condition of the blood.
$B$ represents points in favor of pure, rich, normal blood.
Read pages 24 and 25.

# "The true essentials of a feast are fun and simple feed." -O. W. Holmes. <br> "Good men eat and drink that they may live." <br> -Plutarch. 

BREAKFAST-Cornmeal Muffins, Salad, Fats.
Muffins-Use whole cornmeal as the flour in your best muffin recipe. Serve hot with butter and a little honey-Nature's purest sugar.
Salad-Prepare, pick and wash, set in open air to crisp one head of lettuce. Arrange on salad plates, add four or five ripe olives, over which grate a little raw carrot.
Drink-Hot or cold water, milk or chocolate.
Muffins-protein, fat, starch-SUGARS-aids growth and repair, gives heat and energy.
Lettuce?
Carrots \}-fats, sugars, mineral salts and bulk-supplies heat and energy; best regulating
Olives $J$ agent.
Drink-best digestive aid.
LUNCH-Cottage Cheese, Carrots, Leafy Vegetable, Fruit.
Cottage Cheese-Heat clabber milk below boiling point, strain through cheese-cloth or very fine sieve. Best if set away to drain for a time. Break up with a fork, add seaesoning to taste and a little cream. Serve with leafy vegetable and diced carrots, beets, any cooked vegetables.
Fruit-Ripe fruit in season.
Drink-Hot or cold.
Cottage Cheese-protein, fat, sugars-promotes growth of new tissues, supplies heat and energy.
Carrots-sugars and mineral salts-gives energy and acts as a regulating agent.
Leafy Vegetable-mineral saits-supplies vital regulating elements.
Fruit-sugars and mineral salts-gives energy and regulates all bodily functioning.
Water-best digestive aid.
DINNER-Fish, Spinach, Carrots, Leafy Vegetable, Tomatoes, Fruit.
Fish-Fresh fish, about three pounds. Clean and wash fish, dry with clean cloth and put in stuffing. Sew up the opening, place in baking-dish or pan on a piece of cotton gauze with which to lift baked fish out of pan (greased paper may be used in place of gauze).

Stuffing for Fish-Boil three medium sized potatoes in skins, peel, mash and whip very light, add seasoning and cream or fat; have prepared one tablespoonful each minced bell pepper, onion, parsley, and a pinch of powdered thyme. Add to the potato, season to taste. Mix well together. Potatoes so prepared contain all their alkaline qualities and may be eaten with meats occasionally. Bake in moderate oven, basting frequently. Allow fifteen minutes to each pound of fish, and fifteen extra minutes for the heating. Serve with lemon and parsley.
Spinach-Steam in its own juices, as given on page 6. Any leafy vegetable may be cooked in open-bottom pan over other vegetables; care must be taken to blend the flavors that suits the tastes of YOUR family.
Carrots-Cooked as given on page 4. Any non-starchy vegetable may be used.
Watercress-Pick over carefully and wash through several waters. Set in open air to crisp.
Tomatoes-Wash and slice. Arrange green vegetable on plates. Add four or more slices of tomato. Serve with $x$ little salt or any dressing preferred. Tomatoes may be peeled by pouring over them sufficient boiling water to cover. Pour this off immediately and add cold water. The skin may then be removed very easily. Remember, much of the valuable mineral salts are lost when the skins of fruits or vegetables are removed.
Fruit-Sliced lemon used with the fish.
Fish-protein, fats, starch and mineral salts, for growth and repair, heat and energy:
Spinach-fat and mineral salts, regulating agents.
Carrots-sugar and mineral salts, for heat and energy.
Watercress-mineral salts, regulating elements.
Tomatoes-mineral salts, regulating elements.
Fruit-mineral salts, regulating elements.
MEAL PLAN FOR THE DAY-
Dinner-Meat Foods our basis.
One Meat Food-Fish.
One or more Non-Starchy Vegetables-Spinach, carrots.
One Raw Salad Vegetable-Watercress.
Acid Vegetable-Tomato.
One Fruit-Lemon.

## Breakfast-

One Starchy Food-Cornmeal muffins.
One Salad Vegetable-Lettuce.
One or more Fats-Butter, chocolate.
Lunch-
One Meat Food and Fat-Cottage cheese.
One Non-Starchy Vegetable-Carrots.
One Leafy Salad Vegetable-Romain.
One Fruit-Berries.

## SWEET FRUITS-SUGARS

## GROUP V-SWEET FRUITS——DRIED OR VERY RIPE FRESH FRUITS

With one of the Sweet Fruits combine-
One or more non-starchy vegeables, cooked.
One or more raw salad vegetables.
One meat food

GROUP V
SUGAR FRUITS
True Sugars
Apples
Apricots
Currants
Dates
Figs
Prunes
Raisins
Jams
Jellies
Marmalade
Preserves
Preserved citron
Preserved ginger
Rhubarb, stewed
Oranges, ripe, raw
Apples, ripe, raw
Grapes, ripe, raw
(Honey)

## Melons

Casaba
Christmas melon
Cantaloupe
Honey Dew
Muskmelon
Watermelon

GROUP IV
VEGETABLES
Non-Starchy
Artichokes (Jerusalem) Asparagus
Beets
Brussels sprouts
Cabbage
Cauliflower
Carrots
Celery
Chayotes
Corn, green
Corn, canned
Darndelion
Eggplant
Kggp
Kohlrabi
Leeks
Lettuce
Mushrooms
Mustard
Okra
Onions
Parsley
Parsnips
Peas, green
Peas, canned
Putabaga
Salsify (oyster plant)
Spinach
String beans
Summer squash
Swiss chard
Chinese cabbage
Tomato
Turnips
Wax beans
Lima beans

Artichokes (French)

## Asparagus

Cabbage
Carrots, small
Cauliflower
Celery
Chili pepper
Chicory
Chives
Cucumber
Dandelion
Endive
Garlic
Greens-
Beet tops
Turnip tops
Sour or narrow dock
Kale
Lettuce
Mustard
Mint
Nasturtiums-leaves, flowers, stems
Ripe olives
Onions, young, raw
Parsley
Peppers
Radishes
Romain
Spinach
Sorrel
Swiss chard
Turnips, small
Watercress

Salad


## -

Chicken
Duck
Goose
Pigeon
Turkey
Rabbit
Venison
Wild fowl
Beef, fresh, dried
canned
Brains
Heart
Lamb
Liver
Mutton
Mutan
Oxtail
Pork
Sausage
Sweetbread
Tongue
Veal
Wienerwurst
Fish, all kinds
Bass
Cod
Halibut
Salmon
Caviar
Clams
Crab
Frog legs
Lobster
Oyster
Shrimp
Turtle
Turtie
Eggs
Gelatine
Junket

## Dairy Products

Buttermilk
Clabber milk
Skimmed milk
Whole milk
Malted milk
Cheese, all kinds
American cheese
Cottage cheese
Nuts
Almonds
Brazil nuts
Butternuts
Beechnuts
Cocoanut
Filbert
Hickory nut
Pecans
Pignolia
Pinenuts
Sabine
Walnuts, black, English

Pead pages 26 and 27.

## FOOD GROUP VI.

Most marvelous provision has Nature made for her children. Her color scheme that of the rainbow, Violet, indigo, blue, green, yellow, orange, red-apples, oranges, lemons, vegetables, berries, prunes, plums-all speak of the wonderful works. Hope there is that all may use her gifts as she prepares them. Let us go forth under the open sky and list to Nature's teachings, then with the Psalmist of old shall we exclaim, "I shall lift up mine eyes unto the hills and worship 'The God of the Open Air.'"

BREAKFAST-Fruit, Toasted Corn Flakes, Lettuce Butter, Milk.
Figs-Prepared by washing through several waters; cover with cold water and let soak over night. May be eaten as soaked or stewed over slow fire as prunes-given on page 4.
Toasted Corn Flakes-Heat; serve with butter (or Shredded Biscuits the same).
Lettuce-Prepare as given on page 6 ; serve with oil dressing or, if shredded, may be used with toasted Hakes and butter.
Drink-Milk, hot or cold, as desired.
Figs-SUGARS and mineral salts-supplies heat, energy and aids in regulating all bodily processes.
Toasted Flakes-SUGARS and fats-gives heat and energy.
Lettuce-mineral salts and bulk-regulating agent.
Milk-protein, fats, sugars, mineral salts-builds new tissues, gives heat, energy and valuable mineral salts.
LUNCH-Egg, Leafy Vegetable, Fruit, Drink.
Egg-Cold hard-boiled egg, sliced on salad vegetable.
Endive-Pick and wash as you do lettuce; place in air to crisp. Nay dice any cold vegetable you may have on hand, and use in this salad. Arrange leaves on dinner plate, place sliced egg on leaves, then add regetables in center and cover with mayonnaise dressing.
Fruit-A good ripe apple.
Drink-Water best-hot or cold.
Egg-protein, fats-for growth and repair and heat.
Leafy Vegetable-mineral salts, and bulk-best regulating agent.
Fruit-Sugars and mineral salts-energy and digestive aid.
Water-best regulating agent.
DINNER-Beans, Summer Squash, Beets, Celery, Ice.
Beans-Wash and rinse one cup of navy beans, cover with water sufficient to soak and cook them. Dried seed foods should be soaked from six to ten hours and cooked in this same water in which they have been soaked as this water contains all the valuable alkaline salts. Bake six to ten hours; one-half hour before serving take from oven and season according to the taste of YOUR family; place in oven and brown. Beans cooked in this manner are easily digested as they contain all their food values, while if the first waters are thrown away then soda added you have only a heavy, starchy mass, highly seasoned-a perfect condition for fermentation.
Summer Squash-Wash, cut in small pieces, add but little water. Cook until tender; add seasoning as you like. (The Asparagus Squash is excellent as it has an oyster flavor. Scalloped with celery makes a rare dish. It is easily grown.
Beets-Prepared as all vegetables, save all liquid may be used in soup or gelatine. Cover with cold water, the skin will then slip off easily. Slice or chop and serve with little salt and butter. A teaspoonful of sweetening improves some beets.
Celery-Pick, wash carefully and set away to cool and crisp. Serve in quarters, garnished with parsley. A bit of parsley each day is most wholesome.
Ice-Jiffy Jell, one parkage pineapple flavor; rhubarb, six or more stalks; sweetening. Cream onehalf pint. Wash and cut into one-quarter-inch pieces six or more stalks of rhubarb. Stew in earthen or granite pan, adding one-half cup of sweetening when placing on fire. Stew until tender, drain off juice and chill-ice cold best. There should be one cupful of juice.

To one package of Pineapple Jiffy Jell add one cup of boiling water. Keep hot until thoroughly dissolved, then add the cup of cold juice-this sudden chilling renders all gelatine as clear as crystal-then add flavoring from little vial contained in every package. Set away to cool (not set); when perfectly cold beat with Dover beater until creamy. Whip cream, saving out one tablespoonful to place on top of each serving. Add the remainder of the cream to beaten gelatine. This is ample to serve four persons.

Beans-starch-SUGARS, fats, mineral salts-for growth and repair, heat, energy and regulating agent.
Summer Squash-some SUGARS, mineral salts-heat, energy, regulating agent.
Beets-SUGAR, fat and mineral salts-heat, energy and regulating agent.
Celery-mineral salts and bulk-digestive aid.
Ice-protein, fats, SUGARS-for growth and repair, supplies heat and energy.

Dinner-Starchy Food the basis.
One Starch Food-Beans, baked.
One or more Non-Starchy Vegetables - Summer squash. beets.
One or more Green Leafy Cegetables-Celery.
One or more Fats-Cream Gelatine Ice.

## Breakfast-

One Fruit-Figs.
One starch-SUGAR-Toasted flake food.
One Salad Vegetable-Lettuce.
One or more Fats-Butter, milk.
Lunch-
One Meat Food-Eggs.
One Salad Vegetable-Lettuce.
One Fruit-Apple.

## ACID FRUITS AND ACID VEGETABLES

## GROUP IV-SOUR OR ACID FRUITS AND ACID VEGETABLES

With one of the Acid Fruits combine-
One or more non-starchy vegetables, cooked.
One or more raw salad vegetables.
One meat food or
One of the fats (see combination for Group II, page 7).

| GROUP VI | GROUP IV |  | GROUP I |
| :---: | :---: | :---: | :---: |
| ACID FRUITS | VEGETABLES |  | PROTEINS |
| Sour Fruits | Non-Starchy | Salad | Meat Foods |
| Apples | Artichokes (Jerusalem) | Artichokes (French) | Chicken |
| Apricots | Asparagus | Asparagus | Duck |
| Avocado ? | Beets | Cabbage | Goose |
| Berries, all kinds | Brussels sprouts | Carrots, small | Pigeon |
| Cherries | Cabbage | Cauliflower | Turkey |
| Currants | Cauliflower | Celery | Rabbit |
| Dates | Carrots | Chili pepper | Venison |
| Figs, fresh | Celery | Chicory | Wild fowl |
| Grapes | Chayotes | Chives | Beef, fresh, dried |
| Grapefruit | Corn, green | Cucumber | canned |
| Guava | Corn, canned | Dandelion | Brains |
| Lemons | Dandelion | Endive | Heart |
| Limes | Eggplant | Garlic | Lamb |
| Loquats | Kale | Greens- | Liver |
| Nectarine | Kohlrabi | Beet tops | Mutton |
| Orange | Leeks | Turnip tops | Oxtail |
| Peach | Lettuce | Sour or narrow dock | Pork |
| Pear | Mushrooms | Kale | Sausage |
| Persimmon | Mustard | Lettuce | Sweetbread |
| Pineapple | Okra | Mustard | Tongue |
| Plums | Onions | Mint | Veal |
| Pomegranate | Parsley | Nasturtium (leaves, | Wienerwurst |
| Prunes, fresh, raw | Parsnips | stems, flowers) | Fish, all kinds |
| Quince | Peas, green | Ripe olives | Bass |
|  | Peas, canned | Onions, young, raw | Cod |
| ACID VEGETABLES | Rutabaga | Parsley | Halibut |
| Cabbage | Salsify (oyster plant) | Peppers | Salmon |
| Leeks | Spinach | Radishes | Caviar |
| Tomatoes | String beans | Romain | Clams |
|  | Summer squash Swiss chærd | Spinach Sorrel | Crab Frog legs |
|  | Chinese cabbage | Swiss chard | Lobster |
|  | Tomato | Turnips, small | Oyster |
|  | Turnips | Watercress | Shrimp |
|  | Lima beans |  | Turtle |
|  |  |  | Gelatine |
|  |  |  | Junket |
|  |  |  | Dairy Products |
|  |  |  | Buttermilk |
|  |  |  | Clabbermilk <br> Skimmed milk |
|  |  |  | Whole milk |
|  |  |  | Malted milk |
|  |  |  | Cheese, all kinds |
|  |  |  | Cottage cheese |
|  |  |  | Nuts |
|  |  |  | Almonds |
|  |  |  | Brazil nuts |
|  |  |  | Butternuts |
|  |  |  | Cocoanut |
|  |  |  | Filbert |
|  |  |  | Hickorynut |
|  |  |  | Pecans |
|  |  |  | Pignolia |
|  |  |  | Pinenuts <br> Sabine |
|  |  |  | Walnuts, black, English |

One Meat Food.
One or more Non-Starchy Vegetables. One or more Raw Salad Vegetables. One Fruit.

# FOOD GROUPS AND PERFEC 

Combine the foods within these squares

## MEAT FOODS

Chicken (A-10)
Ducks
Goose (A-2)
Pigeon
Turkey (A-3.6)
Rabbit
Venison
Wild fowl
Beef, fresh (A-10), dried
A-8.3), canned
Brains
Heart
Lamb (A3.9)
Liver
Mutton (A-4)
Oxtail
Pork (A-2.2)
Sausage (A-3.4)
Sweetbreads
Tongue
Veal (A7.1)
Wienerwurst
Fish, all kinds (A5.4)
Bass (A-7.6)
Cod (A12)
Halibut (A-7.8)
Salmon (A-5.4)
Caviar
Clam
Crab
Frog legs (A-12.1)
Lobster
Oysters (A-30)
Shrimp
Turtle
Eggs (A-8)
Gelatine
Junket

## Dairy Products

Buttermilk (B-6.1)
Clabber milk
Skimmed milk (B-5)
Whole milk (B-2.6)
Malted Milk
American cream cheese
All kinds of cheese (A-1.2)
Cottage cheese

## Nuts

Brazil nuts
Butternuts
Cocoanut (B1.2)
Filberts
Hickory nuts
Walnuts, black
Walnuts, English (A1.1)

## ACID FRUIT

Apples (B-6)
Apricots (B11)
Berries, all kinds (Bx)
Cherries (B-7.8)
Currants
Dates
Figs, fresh
Grapes (B-2.8)
Grapefruit
Leeks (acid vegetable)
Lemon (B12)
Limes
Loquats
Nectarine
Orange (B-11)
Onions (acid vegetable)
Peaches (B12.2)
Pears (B-5.6)
Persimmons
Pineapple, fresh (B-15.7)
Plums (B-7.3)
Pomegranate
Prunes, fresh, raw
Quince
Tomato (acid vegetable) (B-24.5)

## SWEET FRUIT-DRIED

 SugarsApples
Apricots
Currants (B-1.8)
Dates (B-3.2)
Figs (B-32.3)
Prunes (B-8)
Raisins (B-6.8)
Apples, ripe, raw (B-6)
Grapes, sweet, raw (B-4)
Orange, sweet, raw (B-14.4)
Rhubarb (B-37)
Melons ${ }^{\circ}$ (B-19)
Citron (B-3)
Watermelon (B8.8)

## Honey

Syrups, cane, corn, maple (B-20.8)
Sugar, cane, maple, beet

## Jam <br> Jelly

Marmalade (B-1)
Preserves

NON-STARCHY VEC TABLES

Artichokes (Jerusalem)
Asparagus (B-3.6)
Beets (B-23.6)
Brussel sprouts
Cabbage* $(\mathrm{B}-18)$
Carrots (B-24)
Carrots (B-24)
Celery (B-42.2)
Chayotes
Corn, green
Corn, canned
Corn, on cob
Dandelion
Eggplant
Kale
Kohlrabi
Leeks*
Lettuce (B-38.6)
Lima beans (B-12)
Mushrooms
Mustard
Okra
Onions
Onions*
Parsnips
Peas, green
Peas, canned
Salsify (oyster plant)
Spinach (B-113)
String beans, small
String beans, sma
Summer squash
Swiss chard (B-41
Chinese cabbage
Tomatoes
Turnips (B-7)
Wax beans (B-11.5)
*Acid Vegetables. N Rich Starchy Foo

A represents so many points fo B represents points in favor of
$x$ Cranberries (B-3.7), Raspberr
a Melons should be eaten alone.

## D COMBINATIONS INDICATED

One Starchy Food.
One or more Non-Starchy Vegetables.
One or more Raw Salad Vegetables.
One or more Fats.
tastes, habits and customs of YOUR group.

tion of the blood.
normal blood.
13).
kfast or lunch.

## VEGETABLES

Average percentage Mineral Salts in one-pound portions.

|  |  |  |  |  | 20 0 0 0 0 0 0 0 0 0 0 |  |  | $\tilde{H}_{0}^{\circ}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seeds- |  |  |  |  |  |  |  |  |  |
| Barley | . 025 | . 10 | . 35 | . 04 | . 46 | . 02 |  | . 0013 | 2.6 |
| Buckwheat | . 02 | . 08 | . 16 | . 04 | . 40 | . 01 |  |  | 1.8 |
| Cornmeal | . 015 | . 13 | . 17 | . 03 | . 3 |  | .116 | .0011 | 1.5 |
| Corn, Green | . 008 | . 055 | . 137 | . 05 | . 22 | . 014 | . 044 | . 0008 |  |
| Oats ....... | . 13 | . 212 | . 458 | . 109 | . 872 | . 035 | . 215 | . 0036 | 2.1 |
| Rice | . 012 | . 045 | . 084 | . 028 | . 203 | . 05 | . 105 | . 0009 | 1.4 |
| Rye | . 07 | . 22 | . 60 | . 04 | . 81 | . 02 | . 17 | . 004 | 1.5 |
| Whole Wheat | . 061 | . 213 | . 519 | . 068 | . 902 | . 08 | . 17 | . 0053 | 1.0 |
| Patent Flour |  |  |  |  | ... |  |  |  | . 5 |
| Beans- |  |  |  |  |  |  |  |  |  |
| Dried | . 22 | . 25 | 1.40 | . 26 | 1.14 | . 03 | . 22 | . 0070 | 3.5 |
| String | . 075 | . 043 | . 28 | . 03 | . 12 | ... | . 04 | . 0016 | . 9 |
| Peas- | . 14 | . 24 | 1.06 | . 16 | . 91 | . 04 | . 23 | . 0056 | 2.9 |
| Green | . 04 | . 07 | 1.30 | . 04 | . 26 | . 01 | . 06 | . 0016 | 1.5 |
| Lentils | . 12 | . 05 | 1.75 | . 25 | . 66 | . 08 | . . . | . 0086 | 5.7 |
| Fruits- |  |  |  |  |  |  |  |  |  |
| Cucumber | . 022 | . 015 | . 17 | . 015 | . 08 | . 03 | . 022 | $\ldots$ | . 4 |
| Eggplant |  |  | . . |  |  |  |  |  | . 5 |
| Melons- |  |  |  |  |  |  |  |  |  |
| Musk | . 024 | . 020 | . 283 | . 082 | . 035 | . 041 | . 014 | . 0003 | . 3 |
| Wumpkin | . 02 | . 02 | . 09 | . 01 | . 02 | . 01 | . 007 |  | . 3 |
| Sumpkin | . 03 | . 015 | . 08 | . 08 | . 17 | . 01 | . 02 |  | 1.2 |
| Tomatoes | . 02 | . 017 | . 05 | . 05 | . 08 | . 01 | . 026 | . 0008 | . 5 |
| Olives, Ripe | . 17 | . 01 | 1.8 | . 17 | . 03 | . 01 | . 025 | . 0029 | 3.4 |
| Flowers- |  |  |  |  |  |  |  |  |  |
| Artichoke, French Cauliflower ....... | . 17 | $\underline{0} \ddot{2}^{\circ}$ | . $27{ }^{\circ}$ | .iv | .14 | . 05 | . 085 | $\ldots$ | 1.7 .7 |
| Leaves- |  |  |  |  |  |  |  |  |  |
| Dandelion |  |  |  |  |  |  |  | . 0027 | 4.6 |
| Endive | . 14 | . 02 | .45 | . 15 | . 10 |  |  |  |  |
| Lettuce | . 05 | . 01 | . 42 | . 04 | . 09 | . 06 | . 014 | . 001 | . 8 |
| Mustard | . 689 | . 430 | . 917 | . 076 | 1.729 | . 016 | 1.230 |  |  |
| Parsley |  |  |  |  |  |  |  |  |  |
| Romain |  |  |  |  |  |  |  |  |  |
| Spinach | . 09 | . 08 | . 94 | . 20 | . 13 | . 02 | . 041 | . 0032 | 1.4 |
| Watercress | . 26 | . 05 | ... |  | . 07 |  |  | ... |  |
| Brussels Sprouts |  |  |  |  |  |  |  |  |  |
| Cabbage | . 068 | . 026 | .45 | . 05 | . 09 | . 03 | . 07 | . 0011 | . 9 |
| Stems- |  |  |  |  |  |  |  |  |  |
| Asparagus | . 04 | . 02 | . 20 | . 01 | . 09 | . 04 | . 04 | . 0010 | . 8 |
| Celery . | . 10 | . 04 | . 37 | . 11 | . 10 | . 17 | . 025 | . 0005 | . 8 |
| Rhubarb | . 06 | . 02 | . 39 | . 03 | . 07 | . 035 |  |  | . 7 |
| Bulbs- |  |  |  |  |  |  |  |  |  |
| Garlic |  |  |  |  |  |  |  |  |  |
| Leeks | . 08 | . 02 | . 24 | . 11 | . 15 | . 63 | . 08 |  | . 7 |
| Onions | . 06 | . 03 | . 23 | . 02 | . 12 | . 02 | . 06 | . 0005 | . 6 |
| Roots- |  |  |  |  |  |  |  |  |  |
| Beets | . $\hat{0} \overline{3}$ | . 033 | . 45 | . 10 | . 09 | . 04 | . 015 | . 0006 | 1.1 |
| Carrots | . 077 | . 034 | . 35 | . 13 | . 10 | . 036 | . 022 | . 0008 | 1.0 |
| Horseradish | . 13 | . 065 | . 56 | . 08 | . 1 | . 02 | . 18 | . . . |  |
| Parsnips | . 09 | . 07 | . 70 | . 01 | . 19 | . 03 |  |  | 1.5 |
| Radish | . 05 | . 02 | . 17 | . 11 | . 09 | . 05 | . 05 | . 0006 | 1.0 |
| Turnips | . 089 | . 028 | . 40 | . 08 | . 117 | . 04 | . 07 | . 0005 | . 8 |
| Tubers- |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Irish | . 016 | . 036 | . 53 | . 025 | . 140 | . 03 | . 03 | . 0013 | 1.0 |
| Sweet | . 025 | . 02 | . 47 | . 06 | . 09 | . 12 |  | . 0005 | 1.1 |
| Peanuts | . 10 | . 28 | . 85 | . 07 | . 90 | . 04 | . 243 | . 0020 | 2.0 |

Compiled from U. S. Bulletins by W. O. Atwater. Chemistry of Food and Nutrition by Henry C. sherman.

FRUITS AND NUTS
Average percentage Mineral Salts in one-pound portions.


Sweet Fruits-
Sugars-

| Apples | . 014 | . 014 | . 15 | . 02 | . 03 | . 004 | . 005 | . 0003 | 2.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Apricots | . 014 | . 018 | . 28 | . 06 | . 06 | . 003 |  |  | 2.4 |
| Currants | . 14 | . 08 | 1.0 | . 1 | . 3 | . 06 |  |  | 4.5 |
| Dates | . 10 |  |  |  | . 12 | . 003 |  |  | 1.2 |
| Figs | . 2.99 | . 145 | 1.478 | . 064 | . 332 | . 056 |  | . 0032 | 2.4 |
| Prunes | . 06 | . 08 | 1.2 | . 1 | . 25 | . 01 | . 03 | . 0029 | 2.3 |
| Raisins | . 088 | . 15 | 1.0 | . 19 | . 29 | . 07 | . 06 | . 005 | 3.1 |
| Rhubarb | . 06 | . 02 | . 39 | . 03 | . 07 | . 035 | ... |  | . 4 |
| Honey | . 005 | . 03 | . 5 | . . . | . 04 | . 03 |  | . 0010 |  |
| Acid Fruit- |  |  |  |  |  |  |  |  |  |
| Apples | . 014 | . 014 | . 15 | . 02 | . 03 | . 004 | . 005 | . 0003 | . 3 |
| Apricots | . 018 | . 018 | . 28 | . 06 | . 06 | . 003 |  |  | . 5 |
| Bananas | . 01 | . 04 | . 50 | . 02 | . 055 | . 02 | . 013 | . 0006 | . 8 |
| Berries- |  |  |  |  |  |  |  |  |  |
| Blackberries | . 08 | . 035 | . 205 |  | . 08 |  | . 01 |  | . 5 |
| Cranberries | . 024 | . 001 | . 09 | .013 | . 03 |  | . 008 | .0006 | . 4 |
| Gooseberries | . 05 | . 02 | . 21 | . 03 | . 65 | . 01 | ... |  | . . |
| Huckleberries | . 035 | . 025 |  |  | . 07 | . . . | . . . | . 0011 |  |
| Raspberries | . 07 | . 04 | . 21 |  | . 12 |  | ... |  | . 6 |
| Strawberries | . 05 | . 03 | . 18 | . 07 | . 064 | . 01 |  | . 0009 | . 6 |
| Cherries | . 03 | . 027 | . 26 | . 03 | . 07 | . 01 |  | . 0005 | . 6 |
| Currants | . 05 | . 04 | . 25 | . 02 | . 10 | . 01 | . 01 | . 0005 | . 7 |
| Dates | . 10 |  |  |  | . 12 |  | . . . | . 003 | 1.2 |
| Figs | . 074 | . 034 | . 365 | . 016 | . 082 | . 014 | 024 | . 0008 | 2.4 |
| Grapes | . 024 | . 014 | . 25 | . 03 | . 12 | . 01 | . 024 | . 00013 | . 4 |
| Grapefruit | . 03 | . 02 | . 17 | .$^{1}$ | . 04 | . 01 | . 012 | . 00004 | . 4 |
| Limes | . 08 | . 02 | . 42 | . ${ }^{\text {a }}$ | . 08 | . 04 |  |  |  |
| Oranges | . 06 | . 02 | . 22 | .01 | . 05 | . 01 | . 013 | . 0003 | . 4 |
| Peaches | . 01 | . 02 | . 25 | . 02 | . 047 | . 01 | . 01 | . 0003 |  |
| Pears . | . 021 | . 019 | . 16 | . 03 | . 06 | $\ldots$ | ... | . 0003 | . 4 |
| Persimmons | . 03 | . 015 | . 35 | . 02 | . 05 | . 01 | . $\cdot$ |  | . 9 |
| Pineapples | . 02 | . 02 | . 38 | . 02 | . 06 | . 05 | $\ldots$ | . 00005 | ... |
| Plums ... | . 025 | . 02 | . 25 | . 03 | . 055 | . 01 |  | . 0005 |  |

## Nuts-

| Acorns |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Almonds | 30 | . 35 | . 20 | . 03 | . 87 | . 005 | . 135 | . 002 | 1.1 |
| Beech | . . . | . . . | ... | . . . | . . | . . . | ... |  | 20 |
| Brazil | . . . | . . . | $\ldots$ | . | ... | . . | ... | . . | 22.0 |
| Butter |  |  |  |  |  |  |  |  | . 4 |
| Chestnuts | . 04 | . 08 | . 50 | . 05 | . 20 | . 01 | . 068 | . 001 | 2.2 |
| Cocoanuts | . 09 | . 10 | . 77 | . 10 | . 38 | . 25 | ... | ... | 1.3 |
| Filberts | ... | ... | . . . | . . . | . . . | ... | . . | ... | 1.1 |
| Hickory | . . . | ... | . . . | . . . | ... | . . | . . | . . . | . 8 |
| Pecans |  |  |  |  |  |  |  |  | . 8 |
| Walnuts Black | . 108 | . 237 | . 44 | . 03 | . 77 | . 01 | . 195 | . 0021 | . 5 |
| English |  |  |  |  |  |  |  |  | . 6 |

## PROTEIN OR MEAT FOODS

Average percentage of food elements and fuel values in calories

| Name |  | $\begin{aligned} & \frac{5}{0} \\ & \text { O} \\ & \text { O } \end{aligned}$ | Carbohydrates and Mineral Salts |  |  |  | 100-Calorie Portion Average Helping | Fuel Value <br> Per Pound |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\stackrel{\otimes}{\text { ®un }}$ |  |  | $\frac{\dot{5}}{\dot{2}}$ |  |  |
| Fowl.......... roast | 1.7 | 51 | 49 | $\ldots$ | . | . 7 | slice $4 \mathrm{in} ., 21 / 2 \mathrm{in}$., $1 / 4 \mathrm{in}$. | 1016 calories |
| Rabbit........ roast | 16 | 22.22 | 9.76 | .. | . | 1.17 |  |  |
| Pigeon........ . baked | 16 | 25.49 | 3.69 | . | . | . 93 |  |  |
| Fish......... baked | 3.0 | 61 | 39 | . | . | 1.2 | piece 3 in., $21 / 4 \mathrm{in}$., 1 in . | 550 calories |
| Oysters....... stew | 7.2 | 49 | 24 | 27 | . | 1.1 | $11 / 3$ cup or $6-15$ oysters | 222 calories |
| Eggs.........in shell | 2.7 | 36 | 64 | .. | .. | 1.0 | $11 / 3 \mathrm{eggs}$ | 672 calories |
| Milk- |  |  |  |  |  |  |  |  |
| Whole. | 5.1 | 19 | 52 | .. | 29 | 0.7 | 5/8 cup | $1 \mathrm{qt}$.675 calories |
| Skimmed....11/8 cup | 9.6 | 37 | 7 | .. | 56 | .. | 11/8 cups | 1 qt. 358 calories |
| Clabber..... |  |  |  |  |  |  |  |  |
| Butter...... | .. | 33.60 | 0.50 | .. | 4.06 | 0.75 |  |  |
| Cheese- |  |  |  |  |  |  |  |  |
| Cream.. | 0.9 | 25 | 72 | . | 3 | .. | piece $2 \mathrm{in} ., 1 \mathrm{in} ., 3 / 8 \mathrm{in}$. | 1965 calories |
| Cottage. | 3.2 | 76 | 9 | . | 15 | .. | $51 / 2$ tablespoonfuls | 1320 calories |
| Nuts- |  |  |  |  |  |  |  |  |
| Walnuts- |  |  |  |  |  |  |  |  |
| English... | 0.5 | 11 | 82 | 7 | . | 1.7 | 8-16 nuts | 3200 calories |
| Beef- |  |  |  |  |  |  |  |  |
| Lean........ pot roast | 2.0 | 48 | 52 | . | . | 1.0 | slice $4 \mathrm{in} ., 3 \mathrm{in} ., 11 / 8 \mathrm{in}$. | 709 calories |
| Fat......... broiled | 1.3 | 31 | 69 | .. | . | 1.0 | slice $13 / 4 \mathrm{in} .11 / 4 \mathrm{in}$., $3 / 4 \mathrm{in}$ | 1100 calories |
| Mutton........leg roast | 1.2 | 33 | 67 | . | . | . 8 | slice $3 \mathrm{in} ., 33 / 4 \mathrm{in}$., 1/8 in . | 874 calories |
| Pork-Ham.... broiled | 1.3 | 29 | 71 | .. | .. | 5.5 | slice $43 / 4 \mathrm{in} ., 4 \mathrm{in} ., 1 / 8 \mathrm{in}$. | 1457 calories |

Compiled from United States Government Bulletins, Sherman, and Rose.

## GOOD GENERAL RULE TO REMEMBER

Foods that go to make PURE, rich, normal blood-foods "Potentially Alkaline"-are:

Spinach
Celery
Lettuce Cabbage
Carrots
Potatoes
Prunes
Onions
Turnips

## Apples <br> Milk

Beans when properly cooked, saving
all waters and using no soda.
Peas
Lemon Juice
Orange juice
Corn-entire grain

Foods that give IMPURE blood unless combined with vegetables-cooked and raw-and ripe, raw fruit. An oversupply of the following foods give an acid condition to the blood and proves a builder of disease:

| All meats | Rice |
| :--- | :--- |
| Beef-lean | Barley |
| Fish | Bacon |
| Eggs | Corn |
| Oats | Sugar |
| Patent and pre- | Sugared sauces |
| pared flour foods |  |

When we eat bread, meat, potatoes, gravy, sugared sauces, jellies, jams, preserves, pickles, pie and cake at one meal we are laying the foundation for an acid blood condition, for loss of vital energy, and for disease in its many forms. There is a great need for all who value health as the first requisite of a successful, happy career to study the value of vegetables, properly cooked-green, raw vegetables-and ripe, rich, raw fruits. Grow them, know them, eat them.

Few of our $100,000,000$ people are rich, but we may all possess true wealth. Riches carry with them untold obligations, worry, ofttimes the least of happiness. Wealth is contentment. It is being satisfied with what we have, ridding ourselves of false estimates; setting up all the higher ideals-a quiet home; vines of our own planting; knowing a few books full of the inspiration of a genius; having a few friends worthy of being loved and able to love us in return; being able to enjoy a hundred innocent pleasures that bring no pain or remorse; having a devotion to the right that will never swerve-a simple religion empty of all bigotry, full of trust and hope and love-then to you this world will give up all the joy it has.

FATS
Average percentage of food elements and fuel values in calories

| Carbohydrates and Mineral Salts |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name |  | $\begin{aligned} & \tilde{\pi} \\ & \text { © } \\ & 0 \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \stackrel{\pi}{0} \\ & \stackrel{0}{4} \\ & \hline \end{aligned}$ |  | $\begin{gathered} \text { N} \\ \text { N } \\ \text { Mo } \\ \text { in } \end{gathered}$ | 泉定 | 100-Calorie Portion Average Helping | Fuel Value Per Pound |
| Butter............. 1 lb . | 1/2 |  | 109 | . | . | - | 1 tablespoonful | 3488 calories per lb. |
| Butter............. 1 cup | 8 | 8 | 1736 | . | . | . |  | 1744 calories per cup |
| Cottolene. . . . . . . 1 lb lb. | 2/5 | . | 100 | . | . | . . | 1 tablespoonful | 4082 calories per lb. |
| Cottolene. . . . . . . . 1 cup | $61 / 3$ | . | 1575 | . . | . | . |  | 1575 calories per cup |
| Crisco............. 1 cup | $61 / 3$ |  | 1575 | . |  | . | 1 tablespoonful | 4082 calories per lb. |
| Cream............ 1 cup | $73 / 4$ | 19 | 791 |  | 26 | . | 1 tablespoonful | 836 calories per cup |
| Lard.............. 1 cup | 8 | . . | 1914 | . | . . | .. | 1 tablespoonful | 3828 calories per lb. |
| Olive Oil........... | 2/5 | . | 100 | . |  | . | 1 tablespoonful |  |
| Peanut Oil....... ${ }^{\text {d }}$ | . . |  |  |  |  |  |  |  |
| Almonds.......... 1 lb . | . . | 21.0 | 54.9 | 17.3 | . | 2.0 |  | 3030 calories per lb. |
| Beechnuts....... 1 lb. | . | 21.9 | 57.4 | 13.2 | $\cdots$ | 3.5 |  | 3075 calories per lb. |
| Hickory Nuts..... 1 lb . |  | 15.4 | 67.4 | 11.4 |  | 2.1 |  | 1145 calories per lb. |
| Pecans.......... 1 cup | $51 / 2$ | 60 | 990 | 26 | . . | 1.9 | 12 nuts | 3238 calories per cup |
| Walnuts, English. | . 5 | 11 | 82 | 7 |  | 1.7 | 8 to 16 nuts | 3200 calories per lb. |
| Olives, Ripe....... |  | 1.7 | 25.9 | 4.3 | . | 3.4 |  | 1166 calories per lb. |
| Bacon.. | . 5 | 13 | 87 |  |  | 5.1 | 4 to 5 small slices | 2836 calories per lb. |
| Avocado Pears. | . $\cdot$ | 2.2 | 17.3 | 4.4 |  | 1.4 |  | 854 calories per lb. |

Compiled from U. S. Bulletins. "Food Products," Sherman. Macmillan Co. "How to Feed a Family," Rose.

The amount of heat given off by a food product during the process of digestion is termed a calorie. A calorie is the quantity of heat which will raise the temperature of one gram of water-fifteen grains -one degree Centigrade. It is the unit of measure for fuel values of all food. When a food is completely digested the same amount of heat is produced in the body as if it were burned outside the body: for instance, one tablespoon of butter represents an hundred caloric portion-the amount of this particular food required to raise the temperature one degree if it is perfectly digested. The digestive process depends entirely upon the combinations of foods, the preparation and the proportion taken. Digestion goes forward without the least thought on our part if the food is taken in its pure natural state, perfectly pre-pared-by proper cooking and thorough mastication-chewing until every particle is in a liquid form. However, all food must be used in moderation, otherwise our best and purest foods aid in poisoning the body by retarding the digestion of other perfectly good food. Butter in its natural state is easily and entirely digested. One and a half to two ounces daily is the greatest of plenty of this pure food. It is almost pure carbon-producing heat and energy. Pure fats are neutral foods, and will combine with all food groups.

In the meat foods, proteins and fats are mostly found in combinations, but do not forget that there are vegetable proteins as well as animal proteins. The whole grain foods, dried beans, peas and lentils furnish high value in protein, all of which are tissue-builders, hence their classification under the heading, Rich Foods. A good general rule to remember is:

Meat and fish contain about $20 \%$ proteins.
Eggs contain about 12 to $14 \%$ proteins.
Milk contains about 3 to $5 \%$ proteins.
Cheese contains about 18 to $35 \%$ proteins.
Nuts contain about 10 to $30 \%$ proteins.
Whole grain foods or cereals contain 8 to $16 \%$ proteins.
Dried beans, peas, lentils and peanuts contain 20 to $25 \%$ proteins.
Potatoes, fresh, contain $7 \%$ proteins.
Potatoes, stored, contain $2 \%$ proteins.
Other vegetables, less.
Our best authorities say sufficient protein supply should be two to three ounces per day. Onehalf ounce protein is roughly contained in the following:

Meat, without bone, two and one-half ounces.
Fish, without bone, two and one-half ounces.
Eggs, two.
One pint of milk, whole or skimmed.
American cream cheese, cube one and one-fourth inch.
Cottage cheese, one-fourth cup.
Cooked cereal, two and one-half to three cups.
White bread, six slices, average size.
Beans (baked), one and one-half cups
The woman of today must fit herself to meet the problems of the future. If she accepts the wonderful opportunity given her by the Department of Agriculture-free knowledge of every phase of food and its relation to the home, and acquaints herself with the excellent articles in our leading magazines, the greatest gain will be hers. Every child is learning the wonders of growing things. Boys and girls alikeknow that a meat food should be combined with one or more non-starchy vegetables, one or more salad vegetables and rich, ripe fruit; that we should never serve more than one starchy food at a meal, with its corresponding group of non-starchy vegetables and salad vegetables, accompanied by one or more fats to assist the digestive process. It is the imperative duty of every woman to know these simple combinatíons that the home and the schools may work in harmony in the great Reconstruction Work. This is the testing time, and she who masters these simple natural laws and brings her family gradu. ally to live in accord with them will be a leader. All diet specialists tell us a change from our present diet should be gradual, within two or three weeks, by substituting a similar menu, as given for breakfast, then a lunch, then dinner, worked out from the combinations given. The center page emphasizes the important part vegetables should have in the daily fare of every family. Let every mother, every homemaker, rather than call attention to the changes, keep her secret and watch the gain in renewed bodily vigor, the mental alertness and increased interest in all the great work of the hour by each member of her household. The reward is well worth the experiment. Hot breads, pies and cake will soon claim little of her time, and there will be less need to intrust the feeding of the family to an unskilled and disinterested party. The boys and girls will soon find mother's kitchen and the garden the most interesting laboratory in which to test out the facts learned at school.

## STARCHES

Average percentage of food elements and fuel values in calories


Compiled from U.S. Bulletins. "Food Products," Sherman. Macmillan Co., New York. \$2.25. "How To Feed a Family," Rose. Macmillan Co., New York. \$2.10.

Let us use our favorite cook book and familiar recipes in making use of the substitutes. Quick breads have proven most satisfactory to solve the bread question. One-half cornstarch or tapioca flour with barley, corn or oat flour for cakes has given good results. Rice flour makes fine pastry and waffles. Mashed potatoes may be used in muffins and cakes. Yeanut oil, cottonseed or maize oil give excellent results for the shortening and salads. Honey and syrups open an interesting study for the sweets, but remember less liquid is then required.

It must be remembered that measures are not accurate and that more uniform results may be secured by weighing. For accuracy in the substitution of the various flours you will find the following table of much assistance.-U. S. Food Administraton.

EQUIVALENT WEIGHTS AND MEASURES

| Wheat Flour |  |  | Substitutes |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit | Bread | Pastry | Barley | Ground Rolled Oat | Corn Flour | Oat Flour and Fine Cornmeal | Rice Flour Buckwheat and Coarse Cornmeal |
| 1 Cup | 4 Oz . 113 Gr. | $\begin{aligned} & 31 / 2 \mathrm{Oz} . \\ & 100 \mathrm{Gr} . \end{aligned}$ | $\begin{gathered} 2 \text { 2/3 Oz. } \\ 76 \mathrm{Gr} . \end{gathered}$ | $\begin{gathered} 31 / 2 \mathrm{Oz} . \\ 98 \mathrm{Gr} . \end{gathered}$ | $\begin{gathered} 4 \mathrm{Oz} . \\ 109 \mathrm{Gr} . \end{gathered}$ | $\begin{aligned} & 41 / 2 \mathrm{Oz} . \\ & 125 \mathrm{Gr} . \end{aligned}$ | $\begin{aligned} & 42 / 3 \mathrm{Oz} . \\ & 133 \mathrm{Gr} . \end{aligned}$ |
| Ozs. | Cup | Cup | Cup | Cup | Cup | Cup | Cup |
| $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 31 / 2 \\ & 4 \\ & 4 \\ & 5 \\ & 6 \\ & 8 \\ & 10 \end{aligned}$ | $\begin{aligned} & 1 / 4 \\ & 1 / 2 \\ & 3 / 4 \\ & 3^{7 / 8} \\ & 1^{11 / 4} \\ & 1^{11 / 2} \\ & 2^{1 / 2} \\ & 21 / 2 \end{aligned}$ | $\begin{aligned} & 1 / 4(+) \\ & 1 / 2(+) \\ & 7 / 8(-) \\ & 1^{11 / 8} \\ & 13 / 8(+) \\ & 15 / 8(+) \\ & 21 / 4 \\ & 27 / 2 \end{aligned}$ | $\begin{gathered} 3 / 8 \\ 3 / 4 \\ 11 / 8 \\ 111 / 3 \\ 11 / 2 \\ 17 / 8 \\ 21 / 4 \\ 3 \\ 33 / 4 \end{gathered}$ | $\begin{aligned} & 1 / 4(+) \\ & 1 / 2(+) \\ & 1 / 8(-) \\ & 111 / 8 \\ & 13 / 8(+) \\ & 15(+) \\ & 21 / 4 \\ & 27 / 8 \end{aligned}$ | $\begin{aligned} & 1 / 4 \\ & 1 / 2 \\ & 3 / 4 \\ & 7 / 8 \\ & 17 \\ & 11 / 4 \\ & 11 / 2 \\ & 2 \\ & 21 / 2 \end{aligned}$ | $\begin{aligned} & 1 / 4(-) \\ & 1 / 2(-) \\ & 3 / 4(-) \\ & 7 / 8(-) \\ & 11 /(-) \\ & 1188(+) \\ & 13 / 8(+) \\ & 17 / 8(+) \\ & 211 / 4(+) \end{aligned}$ | $\begin{aligned} & 1 / 4(-) \\ & 3 / 8(+) \\ & 5 / 8 \\ & 3 / 4 \\ & 7 / 8(+) \\ & 118(-) \\ & 13 / 8 \\ & 13 / 4(+) \\ & 21 / 4(-) \end{aligned}$ |

[^0]Eating is a chemical process. It is a series of steps toward the realization of health, effective service, and success in life. Toward this end man spends most of his time and livelihood. Food is the means to produce this ideal. The purpose of all food is to build new cells and tissues and repair the wornout parts; to supply renewed energy in all normal functioning of the different organs of the body. Everything we eat is either food or poison. Only that part that is digested and assimilated is food, all the extra proves a poison. The innocent, the most unsuspecting, most beloved of mortals are often the prey of food poisoning. The best the family can afford-all the "pure," refined, "standard," "pasteurized," "most nutritious," "ready-to-eat" preparations are provided for our little ones. Could we see the long procession statistics would have us visualize200,000 little white caskets-going annually from our homes, we would find reason to consider the simple standard. Natural foods, properly grouped, simply prepared and thoughtfully proportioned for each individual should be the daily concern of every mother. One of our dietitians tells us "love is a plain case of phosphorus and iron." The mother extracts these essential elements from the grains, vegetables and fruits and stores them for her babe. Should she be so unfortunate as not to be able to feed her babe by Nature's plan, then her duty is to supply these deficient properties in the diet of the well-fed baby. The sugars are abundantly supplied in carrots and beets, the iron in spinach and other green stuff, the phosphorus in whole grain foods and the purest of milk. Disease in every form is caused by an acid condition of the blood. Children should be taught in their earliest months to take fruit juice, alternating with regular food and to eat vegetables-roots, tubers, and leafy vegetables.

The present-day random mixing of miscellaneous starches, meats, acids and sweets has proven most disastrous. When all these chemicals are combined in the warm confines of the stomach fermentation results, and alcohol is manufactured no less than in the moonshiner's still. The effect upon the cells of the body is similar to that upon the brain when distilled liquor is taken-the boozy cells are no longer able to perform their proper functions and enervation, autointoxication must needs follow, leading to all forms of disease. Statistics tell us that but onetenth of one per cent of our people are in perfect health. Let us remember our rich starchy foods-whole grains, dry beans, peas, lentils and potatoes, in most every instance contain a large percentage of protein , a little fat and are high in starches or carbohydrates-hence, the only additional food needed is mineral salts from the vegetables and some fats. No other foods should be taken with a starchy meal. Man has become an omnivorous animal: he has come to think it necessary to eat everything within his reach. Our wealth in ready transportation, our cold storage methods give a bewildering list from which to choose. Herein lies the great danger, also our most wonderful opportunity. If we possess a knowledge of the chemical combination of food; a determination to make our food serve the body's needs; a will to eat simply and with moderation, then the greatest gain is ours. Woman's sphere in the future will be that larger field of dietetics from the standpoint of life in its manifold activities-effective service in every phase. She must know food, its production, use and conservation from the larger outlook. Our growing children know this-there is no alternative. How then may we hasten the good work?

Let us remember it is the whole-seed-foods: - namely, all cereal foods - whole grain foods; beans, peas, lentils, dried or fresh; the green leafy vegetables (see 18th page for classification of vegetables and average mineral content of each); and milk, butter fat, egg yolk fat, vegetable fat, together with other good foods, which keep the body in perfect health. These foods should be used every day in some form in our meal planning. It is not necessary to have a great variety, simple foods properly chosen, thoroughly prepared, and thoughtfully proportioned, always give the most nutrition, and build healthful bodies. It is not the price of milk, green, leafy vegetables-raw or cooked, and fruits that should be considered; they play such a vital part in the economy of the entire body that they cannot be eliminated if one values health. Health is most essential for effective service in any sphere of life.

Goat milk has the same food value as cow's milk, however, one must accustom himself to the peculiar flavor. Children reared on this milk never notice any difference in fiavor. Again it has been found by our best scientific experts that the goat is entirely free from tuberculosis, while one-tenth of our cows are so infected. Goats make nice pets, a garden gives the most healthful exercise, and the growing of fruits brings one face to face with the Creator and his marvelous works.

Average percentage of food elements and fuel values in calories.

| Name | Carbohydrates and Mineral Salts |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \underline{\Xi} \\ & \stackrel{y}{ \pm} \\ & 0 \\ & 0 \end{aligned}$ |  |  |  | 筞亲 | 100-Calorie Portion Average Helping | Fuel Value Per Pound |
| Asparagus | stewed | 15.9 | 32 | 8 | 60 |  | . ${ }^{\text {d }}$ | 20 tips 8 in. long | 213 calories |
| Beets, Small | stewed | 7.7 | 14 | ${ }_{2}$ |  | 84 | 1.6 | 4 beets 2 in . diam. | 180 calories |
| Cabbage. | shredded | 11.2 | 20 | 9 | 71 |  | 1.0 | 5 cups | 143 calories |
| Carrots, Small | stewta | 10.1 | 10 | 5 |  | 85 | 1.0 | 4-5 carrots 3-5 in. long | 205 calories |
| Cauliflower. | stewed | 11.5 | 23 | 15 | 62 |  | . 7 | 1 small head | 138 calories |
| Corn, Green | on cob | 9.0 | 12 | 9 | 79 |  | . 7 | 2 ears 6 in . long | 459 calories |
| Eggplant. | baked |  | 1.2 | . 3 | 5.1 |  | .5 |  | 127 calories |
| Kohirabi.. |  | 2.0 | $18^{.1}$ | 5.5 |  |  | 1.5 |  | 140 calories |
| Peas, Green | stewed boiled | 2.7 | 18 | 37 8 | 45 80 |  | 1.5 1.4 |  | 525 252 calories calories |
| Spinach... | boiled | 21.0 | 12 | 8 | 80 |  | 1.4 | $21 / 2$ cups | 252 calories |
| squash as purchased |  |  | 1.4 | . 5 | 9.0 |  | . 8 |  | 209 calories |
| String Beans | stewed | 8.5 | 22 | . | 71 |  | . 9 | $21 / 4$ cups, in in. piece | 94 calories |
| Swiss Chard. | stewed |  | 3.2 | . 6 | 5.0 |  | 1.6 |  | 173 calories |
| Onion. | cooked | 1.2 | ${ }_{2}^{1.8}$ |  |  |  | 1.9 |  |  |
| Beet Tops | raw | 19.1 | 24. |  | $71{ }^{3.2}$ |  | 1.7 | 4 cups, $1 / 4 \mathrm{in}$. pieces | 237 calories 84 calories |
| Cucumbers | raw | 23.5 | 19 | 12 | 69 |  | . 5 | $21 / 2$ cucumbers 7 in. long | 79 calories |
| Dandelion. | stewed | .. | 2.4 | 10 | 10.6 |  | 4.6 |  | 277 calories |
| Lettuce. | raw | $\cdots$ | 1.2 | ${ }_{25}{ }_{9}^{3}$ | 2.9 |  | ${ }^{3} 8$ | 2 large heads | 87 calories |
| Olives.. | ${ }_{\text {dried }}^{\text {ripe }}$ |  | 15.5 | 25.5 | 63.3 |  | 8.4 |  | 1771 calories |
| Radishas. | raw | 12 | 18 | 3 | 79 |  | 1.0 | 3 doz. red-button | 133 calories |
| Turnip Tops. | stewed | . | 4.2 | . 6 | 6.3 | . | 2.2 |  | 140 calories |

Compiled from U. S. Bulletins, Sherman, Rose.
There are too many good things missed by being a faddist. The vegetarian loses the richness of the meat foods; the fruitarian loses all the good values of both meat and starchy foods; the yeastfree eater loses the richest whole grain foods; the "raw-fodder" man loses the life-giving minerals in our beautiful salads; while the "faster" consumes daily much of the stored-up values in his own body. Know the Food Groups I, II, III, IV, V and VI, and choose with moderation for your own particular needs. One's age, occupation, and the climatic conditions must be taken into account. The thorough mastication of every mouthful is most important. The chewing of all food until every particle has become liquid in form is necessary that the full benefit of all the delicate juices and flavors may aid in the assimilating processes. Regularity in the taking of our food, careful combinations, moderation in eating, and thorough mastication serve better than any novel theory or revolutionary change.

A great dietitian tells us:
> "Eat only when hungry.
> Thoroughly masticate all food.
> Be moderate in your eating.
> During acute illness, fast."

Read J. H. Tilden's "Food," 2d ed., Denver, Colorado, \$2.50.

Vegetables are Nature's great harmonizing medium; they enrich the diet and give valuable forms of food; their principal properties lie in their mineral content which is necessary for the building of the bodily structure and maintaining the alkalinity of the blood. Their bulkiness stimulates the action of the intestines as well as causing the appetite to be quickly satisfied, and their aromatic properties increase the flow of the digestive juices. They are Nature's best cleansers and regulating agents. These may be classed as seeds, fruits, leaves, stems, roots and tubers. They should hold the center place in all food combinations, harmonizing with all the groups. Let us remember that it is not what one eats but what is digested and assimilated that gives health and vigor to our bodies. Let us learn how and what to eat; let us not disregard Nature's laws, for then do we "dig our graves with our teeth." When we mix our foods in accord with the present-day custom, meats, starches, acids and sweets promiscuously, we must face the unchanging law of Cause and Effect. In whatever profession you may be your success depends entirely upon the food you eat. A machine stuffed with an oversupply of fuel will soon refuse to go. Our bodies are the most wonderful pieces of machinery. Whenever we feel dull or unambitious we may be most sure we have crowded our digestive machinery. Fast one day on a single kind of fruit and water and see how much bluer the skies become; evening zephyrs are audible. After such a day, or days, one is even ready to arise with the sun. We get a new vision of life. Remember, man is built around his alimentary tract; if every part of that thirty-two feet of tubing is playing, well its part, receiving and sending a normal, life-giving blood stream daily to the millions of individual cells, all goes well. Our life and work depends entirely upon what we allow to pass our lips. It is a problem of individual initiative; each person is a law unto himself. One may eat and grow fat, another eats and grows thin. Others eat and become sick. Many eat and grow strong and well. Radical changes in diet are unwise. The safest way is to remember the combinations of food groups. Never was the opportunity so great as the present to try the experiment in carefully reducing the quantity and
changing the diet along the lines indicated. Our leading dietitians tell us if our bodies were to be the criterions in a decided change they would reconstruct these combinations to read thus:

One meat food.
One cooked non-starchy vegetable.
One raw salad vegetable-leafy vegetable.
One ripe, raw fruit.
And here let us state in many cases raw fruits and raw vegetables cannot be combined, for the body often refuses to combine rough vegetable fibre and strong mineral salts always found in raw vegetables with the juices of the raw fruit. Each must meet his individual needs. Whenever one feels stimulated and full of vital energy after having partaken of food he may be sure that is an expression of joy for the wisdom of that individual mind. Again, most bodies would have us interpret the second combination thus:

One starchy food.
One cooked non-starchy vegetable.
One leafy vegetable.
One fat.
Could there be anything more simple, more easily prepared, more economical in these strenuous yet wonderful days? Let us return to the frugal fare of our forefathers; then how great shall be our inheritance, favored as we are with all the conveniences and advantages of the greatest of all ages.

Remember, green vegetables dried contain all the valuable minerals. They can be restored to normal condition by soaking twelve to twenty-four hours.

Vegetables are the great solvent factor in all foods. Both cooked and raw, they are much needed in the daily dietary for health. The organic salts are present in all plant foods if these be used in their natural state with the simplest cooking and little seasoning. Whole grain foods, vegetables and fruits furnish abundant supply. Much ill-health and mal-nutrition come from a lack of these vegetable foods. The bones call for calcium. Blood is renewed only when iron is present. Did you know one drop of blood contains more corpuscles than all the stars we see in the sky? These unnumbered cells get their food from the mineral salts in solution throughout the blood stream. The patent flour products, ready-to-eat foods are deficient in these minerals and the body's processes are suspended when we continue the use of such foods. We are given warnings-go cautiously, proclaims the yellow tongue-a dull eye, aches and pains are sure to follow.

The gastric juice depends upon chlorine for its essential hydrochloric acid. Phosphorus, potassium, sulphur, sodium, and magnesium are indispensable in the functioning of the entire organism. There are small quantities of silica, manganese, arsenic and florine required in the less yet subtle operations. Phosphorus, potash, lime and iron are the most essenial. All natural foods contain some of these minerals, some foods contain all of them. Oxygen we get from breathing plenty of pure fresh air and drinking pure water. Carbon from the fats and oils, starchy foods and fruits. Hydrogen is found in the air we breathe, the water we drink, our foods, hydrocarbons, fats and carbohydrates-starches, sugars, mineral salts. Nitrogen we get mainly from the Rich Food groups-proteins-Meat Foods and Starches, GROUPS I and III. Calcium is contained in veal (traces in meats), milk, eggs, whole grain foods, lentils, beans, peas, radishes, asparagus, spinach, most fruits (excepting the apple), and hard drinking water. Phosphorus is found in both animal and vegetable foods. Animal foods-cheese, mutton, white cheese, eggs, beef (barley meal), milk, pork; vegetable foods-whole barley meal (milk, pork), chestnuts, potatoes, cabbage, turnips, carrots. Phosphorus cannot be overrated as a building agent. It is found in the nucleus of growing cells, an essential element in the bones, and the nervous system. Sulphur has antiseptic properties and defends the body against disease breeding bacteria. Cabbage, leeks, onions, egg yolk, and about one-eighth of the total mineral content of fruits contain much sulphur. Sodium occurs as chlorinesodium chloride or common salt. Some authorities say it enters the body and leaves it without apparent change, possibly aiding in stimulating the gastric juice if used in moderation. Natural foods contain sufficient sodium chloride to supply the body's needs. In combination with other chemicals the proportions run thus: In veal there is one part sodium to four parts potassium; in milk, one part sodium to eight parts potassium; in wheat, one part sodium to twelve parts potassium; in potatoes, one part sodium to thirty parts potassium; in peas, one part sodium to forty-four parts potassium. Figs, strawberries and apples are rich in sodium; gooseberries, prunes and peaches have less; most fruits contain a little. The potassium content is high in all fruits except strawberries. Iron is found in beef, veal, white fish, milk, cheese, egg-yolk, whole grain foods-corn, oats, rice, wheat, white beans, peas, lentils, potatoes, green leafy vegetables, apples, strawberries, gooseberries and prunes. Strawberries contain twice as much iron as the prune or milk. Magnesium occurs in veal, meats, milk, eggs, whole grain foods, beans, peas, lentils, radishes, asparagus, spinach, and many of the vegetables. Silicon, manganese, florine and iodine each play their own little, yet essential, part. We get iodine from fish foods-herring, mussels, salmon, cod and oysters. Silica and florine from whole grain foods and vegetables. The following is of interest as an illustration of the chemical changes brought about in our body: Iron in the blood unites with the oxygen in the lungs, where it burns up the waste substances so dangerous to life, thus the oxydizing processes in the tissues produce carbonic gas. This gas is then taken up by the sodium and discharged through the lungs as carbon dioxide. Sodium besides helping the oxygen must in turn be helped by the iron. Calcium assisted by phosphorus, magnesium, silica and florine, builds the bones, teeth and white of the eye. Defective teeth show insufficient calcium phosphate and calcium carbonate-refined grain foods are wanting in these essential mineral salts. We know whole grain foods in place of "milled" wheat, natural rice instead of "polished" rice, whole barley meal, and pure oats without the "prepared," steamed, rolled process added is best. The present-day refining processes remove about three-fourths of the mineral salts from our daily bread. When the phosphorus is thus removed from our foods an increased lime deposit is given in the lungs, leaving an "alkaline field," in which germs thrive. Remember, impoverished tissues are the feeding ground of all bacterial life. Sanitation, sanitary food factories, health boards are blessings of the present day; but the dreaded scourges-tuberculosis, typhoid fever, appendicitis, adenojds and most other ills-are caught at the table when refined foods and miscellaneous mixing are the rule.

Silica influences the nervous system. Sulphur and silica aid in the growth and health of the hair. Animals must have foods containing these organic salts or they lose their covering and die. Foods from which the natural sulphur and silica are taken leave free sulphuric acid in the intestine, which abstracts basic elements from the intestines and tissues, impairing and destroying them.

Potassium, sodium, magnesium, iron, phosphorus, sulphur, silica and chlorine are essential for building new life, hence the expectant mother should have the whole grain foods thoroughly cooked-three to twelve hours in the Fireless Cooker best-a little butter fat. non-starchy vegetables cooked and green salad vegetables, alternating with milk and fruit, and fruit alone as lunch or evening meal.

Arerage percentage of food elements and fuel values in calories．

| Carbohydratesand Mineral Salts |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name |  |  | $\begin{aligned} & 3 \\ & \frac{3}{0} \\ & 0 \\ & \hline \end{aligned}$ | $\underset{\sim}{\pi}$ |  | 采会会 | Average Helping 100－Calorie Portion | Fuel Value Per Pound Dried |
| Apple． | baked | 2.3 | 1 | 3 | 96 | ． 7 | $1 / 2$ large apple | 1318 calories |
| Apricots． | sauce | 2.7 | ＋ | 2 | 94 | 2.4 | $1.10{ }^{1}$ | 1260 calories |
| Currants | stewed | 6.2 | 11 | T | 89 | ． 7 | $11 / 2$ cups，fresh | 1459 calories |
| Figs．． | stewed | 1.1 | 5 | 1 | 94 | 1.2 | $11 / 2$ large figs | 1437 calories |
| Prunes． | stewed | 2.8 | 2 |  | 98 | 2.3 | 2 prunes， 2 teaspoonfuls juice | 1368 calories |
| Raisins | stewed | 1.1 | 3 | 9 | 88 | 3.4 | 1／4 cup | 1562 calories |
| Rhubarb | stewed | 15.27 | 10 |  | 89.3 | ． 7 | large bowl | 105 calories |
| Oranges，Sweet | raw | 9.5 |  |  | 91 | ． 5 | 1 large orange | 233 calories |
| Apples，Ripe． | raw | ． 4 | ． 4 | $15^{.5}$ | 14.2 |  | 1 large apple | 285 calories |
| Grapes，Sweet． | raw | 4.9 |  | 15 | 80 | ． 5 | 1 large bunch | 437 calories |
| Honey． |  | 1.1 | 1 |  | 99 | ． 2 | 1 tablespoonful | 1480 calories |
| Molasses．．．．． |  | 1.2 | 3 |  | ${ }_{97} 97$ | 3.2 | 11／2 tablespounfuls | 1300 calories |
| Syrup，Maple | pure | 1.2 |  | $\cdots$ | 97 100 | 3.2 | $13 / 4$ tablespoonfuls | 1295 calories |
| Sugar，Brown． |  | 0.9 | ．． | ．． | 100 | $\cdots$ | 2 tablespoontuls | 1723 calories |
| Sugar， <br> Granulated |  | 0.9 |  |  | 100 |  | 2 tablespoonfu | 1814 calories |
| Chocolate．．．． | 1 cup | 9.0 | 22 | 63 | 76 | \％． 2 | 1／2 cup scant | 2772 calories |
| Chocolate，Milk． | sweetened | 0.7 | 7 | 58 | 35 |  | piece $21 / 4 \mathrm{in}$ ．， $1 \mathrm{in} ., 1 / 8 \mathrm{in}$ ． | 1865 calories |
| Cocoa．．．．．．．．．．．． | 1 cup | 9.0 | 22 | 63 | 76 | 7.2 | $3 / 5$ cיp ${ }^{\text {p }}$ | 2256 calories |

Compiled from tables in U．S．Bulletins，Sherman and Rose．

If we read our tables showing the percentages of food elements in the edible portions of grains，vegetables and fruits in the simple language of Prof．McAlpine their meaning will be of greater value；for instance，he describes an apple in the following manner：＂Suppose an apple be the size of a large breakfast cup and into this cup you put nearly half a pint of water and stir into it half teaspoonful of concentrated food like that contained in an egg：of fatty stuff like butter－a little less than half a teaspoonful；of both cane and grape sugar，two tablespoonfuls；of mineral matter，as much as will lie on a sixpence；of acids，a little more than a teaspoonful；of skin and core，a little more than two－thirds of a teaspoonful．By this analysis you will see that an apple is not a luxury，but a food product of great value．＂

In all food－forms water plays a most important part．The average amount varies from ten to ninety per cent；for instance，the water content in butter is very low while in watermelon it is very high．This water in the fruits，vegetables and milk is the purest and contains the most valuable mineral elements in solution．From this source the corpuscles of the blood must get much of their nourishment．Upon these blood cells all life＇s activities depend．Let us remember the＂PROTECTIVE FOODS＂are milk，butterfat，egg－yolk fat，vegetable fat，green leafy vege－ tables－raw or cooked，whole seed foods，whole cereal foods，beans，peas，lentils dried or fresh， and fresh ripe fruits．Use one or more of these at every meal．They contain vital properties of food for the old，middle aged，and young alike．

> "He is not worthy of the honey-comb, Who shuns the hives because the bees have stings"-
> -Shakespeare.

Which shall it be sugar or sugars? Sugar means all substances which may be reduced by the digestive processes into the simple sugars, giving energy and vitality. All grains, vegetables and fruits contain notable quantities of sugars. Sugar as we know it on the table, and the sugar our body calls for are entirely different things. The one stimulates and enervates, the other vitalizes the entire digestive process. Sugar in its refined form is a foodstuff of modern times. The ancients used it as a medicine, later they used it on special feast days. India is the native home of the sugar-producing cane. Mention is made of it in the sacred books of the ancient Hindos and Chinese. About the tenth century A. D. sugar cane was carried westward by the Arabs to the valleys of the Tigris and Euphrates. The Moors introduced it into Spain, and the Spaniards carried it and its products to America. In 1492 sugar was selling in London for $\$ 275$ per hundredweight. Today it is considered a necessity in every home.

During the world war the call came for us to eliminate sugar and candy from our food in order that our government might be able to send the concentrated foods to those bearing the heaviest burdens and hardships of the war, as it relieved fatigue and furnished heat with the least expenditure of nerve energy. Our government did not ask an untried thing. Rather, we were requested to seek sweets of true food value. For centuries man lived, thrived, reached the highest type of development, without a knowledge of the existence of sugar as we know it. Honey, known and used since the earliest times by all people, possesses the properties of a perfect sweet, at the same time it is produced with the least economic outlay. In using honey, molasses or syrups, the general rule is to use one and one-fourth the amount the recipe calls for in sugar. However, much depends upon what you are making, the flours, amount of liquids used and the tastes of your individual group. Test it out for yourself; real pleasure in cooking comes when one finds things to be true by actual experience. By comparing the food elements in the accompanying table, one readily sees all plant values are lost in the making of refined sugar; hence, those who insist upon using white granulated sugar and candies are getting a substance devoid of everything of a nutritive character, peculiar to the carbohydrate foods. Sugar in this form is a deceptive food, a stimulant. In Nature's plan there is always a reckoning made, loss of digestive power, fermentation, enervation and all the attending ailments. The habit of pleasing the appetite has become our national menace, a habit indulged in by almost everyone. We eat anything at all times, in all places. Much eaten, more wanted, the result being discomfort rather than pleasure. Refined foods are civilization's greatest bane.

Nature prepares for us apples and oranges; man makes candy.
Nature grows grapes and raisins; man makes wine.
Nature yields corn for bread; man makes whiskey.
Nature gives us cane and beets; man makes sugar.

Read F. C. Howe's "High Cost of Living," Scribner's Sons, New York, \$1.75.

## ACID FRUITS AND ACID VEGETABLES

Average percentage of food elements and fuel values in calories

| Name | Carbohydrates and Mineral Salts |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 100-Carolies Portion Average Helping | Fuel Value <br> Per Pound |
| Apples. | fresh | 7.5 | 3 | 5 | 92 | 2.0 | 1 large apple | 285 calories |
| Apricots. | fresh | 2.7 | 4 | 2 | 94 |  |  | 263 calories |
| Cherries. | stoned | 4.5 | 5 | 9 | 86 | . 6 | 1 cup | ${ }^{354}$ calories |
| Currants | fresh | 6.2 | 11 |  | 89 | . 7 | $11 / 2$ cups | 259 calories |
| Grapes.. | fresh | 4.9 | 5 | 15 | 80 | . 5 | 1 large bunch | 437 calories |
| Lemons. | fresh | 11.4 | 4 | 15 | 76 | . 5 | 3 large lemons | 201 calories |
| Oranges | fresh | 9.5 | 7 | 2 | 91 | . 5 | 1 large orange | 233 calories |
| Peach.. | fresh | 10.5 | 6 | 3 | 91 | . 4 | 3 medium sized | 188 calories |
| Pear. | fresh | 6.3 | 4 | 6 | 90 | .$^{4}$ | 2 medium sized | 288 calories |
| Pineapple | fresh | 8.2 | 4 | 6 | 90 | . 3 | 2 slices 1 in. thick | 196 calories |
| Plums. | fresh | 4.4 | 5 |  | 95 | . 5 | 3 to 4 large ones | 383 calories |
| Raspberrie | fresh | 5.3 | 10 | 14 | 76 | . 6 | $11 / 8$ cups | 247 calories |
| Strawberri | fresh | 9.0 | 10 | 14 | 76 | . 6 | $11 / 3$ cups | 177 calories |
| Leeks. | fresh |  |  |  | 5.8 | . 7 |  | 147 calories |
| Onions | cooked | 7.2 | 13 | ${ }^{6}$ | 81 | . 6 | 3 to 4 medium sized | 220 calories |
| Tomatoes. | raw | 15.5 | 16 | 16 | 68 | . 5 | 2 to 3 medium sized | 104 calories |

Compiled from tables in U. S. Bulletins, Sherman, and Rose.

The average housewife is so apt to be at sea in regard to the difference in "acid foods," or foods that contain acid, and the "acid forming foods," or the ones that produce acid in the blood. As $x$ matter of fact the acid foods as most fruits-grapes, oranges, peaches, apples, etc.-produce the basic substance in the blood where the starches and the meat foods produce the acid substances in the blood, even though they do not contain any acid in their chemical combination.- K . B.

Dr. Alfred Wallace of England knew the joys of the simple life. "He was a very unpretentious man. He worked in his garden, took long walks, wrote two hours every day without fail, read, studied and was interested in everything that relates to Nature, animate or inanimate." His diet was the simplest. The last ten years of his life oranges were his chief food. In his ninety-fourth year he simply went to sleep. His great work links his name with such men as Charles Darwin, Thomas Huxley, John Tyndall and Herbert Spencer. Dr. Wallace's life was proof of his theory, "That the general law of all living creatures is that the life should cover five times the length of time it takes to reach maturity. If man reaches his full maturity at twenty, what is now considered old age should be his prime, and decline should occur after the hundredth year had been reached.
"Lives of great men all remind us We can make our lives sublime."
-Longfellow.

Concentrated sunshine, purest of distilled waters, Nature's sweets! Fruits best of all, supply the universal craving for sweets. The time has passed when fruits were regarded as an article of luxury rather than a staple food. Rich, ripe, raw fruits are essential to a perfect dietary. They contain the richest, purest sweets of the most reliable brand. When man takes these distilled waters, sugars, acids and mineral salts as Nature prepares them his blood will keep its normal tone. The mineral salts in the apple are iron, lime, phosphorus and magnesia, etc. These salts in this form are easily assimilated and aid greatly in maintaining the body in a perfect condition. Apples blend perfectly with one of the meat foods or one of the fats, non-starchy vegetables and salad vegetables. They are man's most universal relish and a child's delight. A basket of apples on the table in the winter months adds as much beauty and fragrance to the room as does a vase of flowers in summer. The apple pleases every sense, touch, taste, sight and smell, and its fall pleases the ear. Its rare keeping qualities make it possible for people in the most remote parts of the world to enjoy its delicious flavor and refreshing nourishment. John Burroughs tells us "the full-juiced apple waxing over mellow is the concentrated shafts of Northern sunshine; it is the natural antidote of most of the ills the flesh is heir to, full of vegetable acids and aromatics. Its sugar and mucilage make it highly nutritious. The apple is the commonest and yet the most varied and beautiful of fruits-temperate, chaste, bracing, sub-acid, active, best friend of man. To absorb and transmute its quality one would be cheerful, contented, equitable, sweet-blooded, long-lived, shedding warmth and sunshine and contentment all round."

Apricots, berries, cherries, peaches, pears, plums, all should hold a large place in our diet.
As the apple bears to us "concentrated shafts of Northern sunshine," so the orange-nuggets of pure gold-gives the sweetest nectar of our Southern clime. The citrus fruits are the result of sunshine, water, love, and labor applied to the richest of soils. They carry cheer and health with them wherever they go. They may be used by sick and well alike if taken in the proper combinations. Oranges, like apples, combine perfectly with one of the Meat Foods, or one of the Fats accompanied by Non-Starchy and Salad Vegetables. The acids of the citrus fruits are most powerful and often cause much troublepain and sickness-when promiscuously mixed with all foodstuffs. Nature has her fixed laws and he who violates these, her just dictates, must needs suffer. An orange and a glass of luke-warm milk is a breakfast or lunch fit for a king. These contain protein, fats, sugars, solvent carbohydrates, mineral salts, and the purest of distilled water are found in the orange. Then shall we add oranges or apples and two glasses of milk if we wish to increase the fare. This is sufficient food for those performing the most strenuous labor. A PERFECT MEAL-easily prepared, cheapest on the bill of fare.

Within these golden orbs Nature has arranged with the most wonderful mathematical accuracy the refreshing coolness of the mountain breeze, the moisture from the brimy deep, and the mystic heat and energy of the desert, and has hermetically sealed all in a pneumatic tire covering, that her children in the uttermost parts of the earth may take of this water of life freely. Most ripe fruits are perfect in their natural state for complete digestion-perfect assimilation. The orange has the rarest of food values. Our leading dietitians tell us the sugar of the orange, like its acid, has the advantage that it is prepared for immediate assimilation and requires no digestion. That it is to the sugar which it contains that the orange owes its chief value as a source of nutriment; in addition to the sugars, it contains nearly one per cent protein. The combined value of its food contituents amounts to 240 calories or food units per pound. These values are best appreciated when compared with similar foodstuffs. Thus:

A pint of orange juice equals 240 food units.
A pint of buttermilk equals 176 food units, 64 units less than orange juice.
A pint of oysters equals 176 food units, 64 units less than orange juice.
Three-fourths pint of whole milk equals one pint of orange juice.
Thus we see while the orange is always a grateful addition to any bill of fare, it also has high nourishing qualities to recommend it. The orange juice supplies the finest of pure distilled water, absolutely free from germs or foreign matter of any kind. As a quencher of thirst oranges have no equal. It is much safer to quench one's thirst by eating an orange than to take your chances at the soda fountain, which is most certainly unsanitary. No finger but your own touches the pulp of the orange, but the glass or spoon and dish from which you receive your serving has doubtless ministered to fifty or a hundred before your lips touch it.

The ordinary diet chiefly made up of meat, bread, and potatoes is a fare decidedly deficient in the mineral salts or acids. In such a case one meal a day of orange juice (an apple just as good) and some form of milk food-whole milk, skimmed, clabber, buttermilk, cheese or cottage cheese-should supply this deficiency. REMEMBER. THE COMBINATIONS. Those who have had to forego the wonderful pleasures of fruits may know its value if used in this manner.

Authorities tell us that the medicinal uses of this mavrelous fruit is little appreciated by the public in general and little used by medical men. As a food in fever cases, they say, nothing could be more perfectly suited to the requirements of the patient's condition. The fever patient needs water to carry off poisons which are burning him up and against which his cells and organs are struggling. Orange juice supplies the finest sort of pure distilled water. The grateful acids furnish aid in satisfying thirst and the agreeable flavor makes it possible for the patient to swallow the amount needed. The intense toxemia from which the fever patient suffers coats his tongue and destroys his thirst for water as well as his desire for food. The agreeable flavor of orange juice aids greatly in overcoming this obstacle. Another special and valuable property of orange juice is the small amount of protein or albuminous matter which it contains. Fever patients have little gastric juice and very small digestive power, and so need to take food which is ready for absorption and immediate use. Foods poor in albumen are also needful in fevers because they do not leave residues to undergo putrefaction in the colon, as do meat, eggs and numerous other foods. Orange juice contains less than one per cent of albumen, so that a patient may take a quart of the juice without getting an excess of material which may prove a source of great injury. Orange juice is almost indispensable to those most unfortunate and suffering of mortals-the bottle-fed babies. Every infant fed from a nursing bottle, babies and older children who are not doing well should receive daily not less than four onces of orange juice to supply necessary vital properties they do not get in their artificial food. Immediate results in renewed growth and heaith can be seen.

Lemons, limes and grapefruit share with the orange in many of its good points. A tea made of the entire grapefruit-a cupful taken throughout the day, one cupful every half hour-is Nature's best remedy for a cold. Two or three times during the dav hold a piece of rock candy in the mouth, taking special care to discard all secretions that collect in the mouth. It is surprising what this simple remedy will do. A leading physician tells us that "r cold is caught at the table." REMEMBER, no food should be taken during this day of fasting for a cold.
> 'Can you wake as wake the birds?
> In their joy and singing share?
> Stretch your limbs as do the herds,
> And drink as deep the morning air?
> Quick as larks on upward wing,
> Can you shun the demon's wiles,
> Promptly as the robins sing,
> Can you change all frowns to smiles?
> Can you spurn fear's coward whine, Meet each day with joyous song? Then will angels guard your shrine, Joys be deep and life be long."

With the first breath of consciousness, accept the new day with a thought of joy, courage, and love towards all mankind. Express a positive thanksgiving for life,-a new opportunity to meet the day's duties, a new occasion to enjoy your friends, and a new privilege to inspire some less favored brother with higher aspirations. The hour of awakening is supreme. Spend a few moments of this time in right thoughts. Ne matter how dull or weary you feel, when you first awake look on the sunny side and laugh. It is easy to look at the light, easy to breathe, easy to stretch, easy to remember something joyous, easy to smile and easy to laugh. Spend a few moments in exercise, scientifically directed, yet as simple as those taken by the animals. Study Nature's simple rules. Nature is always rhythmical. An exercise must obey this universal law of Nature. Rhythm means activity and passivity in alternate proportion. The active doing of an exercise should determine the amount of the reaction. Let the exercise be the expression of thinking the thing you are doing, feeling the renewed life, and willing the act to be performed in perfection. Take all exercises vigorously and definitely. The reactions or rests should be equal and as decided as the active movements. Any exercise taken may become progressive,

First-By gradually increasing the vigor of the movement.
Second-The exercise may be performed slowly and more vigorously.
Third-By repeating the exercise a greater number of times.
Fourth-By the addition of a greater number and variety of exercises.

## ..I-PRIMARY EXPANSION AND EXTENSION*

On awakening take a courageous, joyous attitude of mind. Chuckling deeply, actively expand the whole body and take a deep breath. Place the hand at the waist line, the inhaled breath should raise that hand one and a half or two inches. Diaphramic breathing is Nature's way-watch the little folks, they have the secret. Co-ordinate harmoniously as many parts as can be brought into sympathetic activity. Stretch the arms upward and the feet downward as far as possible. Repeat at least ten times. Count six specific, successive steps-

One, expansion of the chest.
Two, deep breathing.
Three, laughter.
Four, stretch.
Five, gradual relaxation.
Six, complete release or rest. In this short rest period the blood rushes into all parts of the body that have been brought into action, and new life is felt. The stretch should be in the nature of an indulgence, an instinctive longing upon first awakening-a longing in common with all animals. It should be enjoyable, and a help to sustain the laughter.

## II-FREEDOM OF THE VITAL ORGANS

Arise, drink two or three glasses of water, cold best. Lie on the floor, place both hands flat on the abdomen, keep the body extended and expanded, breathing full and free. Manipulate in a circular movement, also backward and forward, all the vital organs. The diaphragm and respiratory muscles should aid in all these movements. Exercise as before each side of the body aIternately, first left arm and leg, feel new life in tips of fingers and toes, counting as in exercise one. Then stretch the right side in the same manner, ten times at least. All exercises should be accompanied with deep, full, diaphragmic breathing. (In the exercises before retiring, the relaxation should be longer and quieting.) Now with both arms and feet extended, take a full breath and spring to your feet at one bound. The harder the day's work, the more essential are some simple exercises. Then should follow a quick wash-face, hands. arm-pits, all parts of the body where secretions are given off, soles of the feet, and a cold splash for the entire body-(the sponge or shower bath good if conditions permit)-and a brisk rub with a coarse towel. Slap face, neck and entire body with quick alternate movements, leaving the skin in a healthy glow. (A few drops of perfume in the water give a sense of superiority one will not lose throughout the entire day.) Cocoanut butter or olive oil the best food for skin and tissues. Use only what will be entirely absorbed by the skin. All this need not take much time. One should take these simple exercises and be dressed within a half hour. Think, feel and will each movement.

The faithful following of a few simple exercises each morning and evening changes the entire outlook on life. The ordinary Good Morning, "often as secular as a snore" will soon become a greeting filled with living affection. In countless little acts of kindness and helpfulness will that "automatic greeting of the breakfast table" find expression. Our vital and physical energies, our playfulness, our love, our store of gratitude for all past gifts have received new life; and all that is calling toward the future comes rushing forth with a new ring in the "time-mellowed greeting." Our imprisoned personality has been set free. Each new day is a new beginning. Now we can smile and enjoy the best around us; think and realize something in the direction of our ideals, even in our everyday work and play; see beauty in Nature, the arts and our fellowmen; express the best in us, and awaken others to find the same joy; serve by a kind look, word and deed; and share in the great movements for the betterment of humanity.**
*Adapted from "Smile and Add Years to Your Life." S. S. Curry, Boston, Mass. \$1.50. \$1.50.
**Adantted from "What Men Live By." Richard C. Cabot, Houghton, Miffin Co., New York City. \$1.50.

Let us "go back to simple life. Be contented with simple food, simple pleasures, simple clothes. Pray hard, work hard, play hard. Work, eat, recreate and sleep. Do it all courageously." Simplicity is a mark of greatness. Nature's laws are slmple, yet most wonderful in magnitude and power. All men are created alike. Each individual is provided with a like digestive system-openings, cavities, tubes-and each of these parts supplied with a powerful digestive solvent for $\boldsymbol{x}$ definite purpose, under fixed conditions. Each human body contains sixteen essential elements. The fertile soil contains these same elements. The seeds, under the influence of sunlight and moisture, in a most mysterious way, extract from the soil inorganic oxygen, carbon, hydrogen, nitrogen, calcium, phosphorus, sulphur, sodium, chlorine, fluorine, potassium, iron, magnesium, silicon, manganese and iodine. Then by a method past finding out Nature supplies these elements now organic in form, and lavishly bestows upon her children in perfectly-balanced, hermetically-sealed packages-the grains, vegetables and fruits. These together with the dairy and poultry products contain all the foodstuffs necessary for the upkeep of life's vital energies. The plants-man's great storehouse-are Nature's food industries, apothecary shops and distilleries. Our country is favored with climatic conditions suitable for growing plants of almost every variety. WHOSOEVER WILL may know the wonders of food and its production; may solve the problem of its distribution; may become acquainted with food classes, their groups and the use each plays in the body's economy. The mind and will of each individual homemaker must play an important part in the selecting and combining, preparing and proportioning of the food for her own particular group. Upon this the final success of life is determined.

If "An Adequate Diet" be the standard, wealth and poverty are equal. On the Atlantic seaboard dwells a family-father, mother, three sons and two daughters. The home is palatial in every appointment. It is surrounded by gardens, orchards, fertile fields, hundreds of acres. The entire estate a veritable park. Could we visit that home today, the fare would be the simplest.

Breakfast-One pint of milk and fruit in season from dairy and garden. Or, whole oatmeal muffins, honey and a simple lettuce salad; drink, hot water.
Luncheon-Vegetable salad, diced carrots and peas on lettuce, fruit from garden; or, fruit and buttermilk from garden and dairy; drink, cold water.
Dinner-Clear soup from vegetables, fowl from their own yards, baked or broiled vegetables, carrots and asparagus, salad, lettuce, cucumbers and tomatoes, al from garden; fruit in season; drink, hot water. Or, baked potatoes, corn on cob beets and spinach, simple lettuce salad, olive or peanut oil; ice cream from home dairy; drink, hot water.
The service, perfect to the smallest detail, one of the daughters assisting the mother, yet there be several servants about the house. The wealth of life's simple values emphasized throughout.

On the Pacific Coast dwells a family-father, mother, three sons and two daughters. The home, the simplest cottage with only necessary furnishings, is surrounded by a well-kept yard and garden with Nature's choicest vegetables and fruits the year round. Let us visit this home:

Breakfast-An orange and one pint of milk apiece; or, whole cornmeal muffins, honey from their own hive, and simple salad from garden; drink, hot water.
Dinner-Baked fish, or rabbit from the yard, baked or broiled; spinach and baked eggplant, salad, lettuce, cucumbers and tomatoes from garden, raw fruit from garden or trees; drink, hot water. Or, baked potatoes, corn on cob, carrots and spinach; salad, simple, oil dressing, no acid. All from garden. Ice cream. Drink hot water.
Supper-Salad, cold vegetables, hard boiled egg, lettuce, fruit from garden; or, whole oatmeal muffins, butter and lettuce salad; drink, water.
Fresh flowers at every meal, wonderful effects wrought by the feminine hand. The daughters assist, week about, in preparing and serving the meals. The greater values of Nature's wonderful gifts are emphasized throughout. These ten children, citizens in the moulding, are all most human. They know nothing of eye glasses, adenoids, tonsillitis, dentists' chairs or wrist watches. Fun, frolic and high-ranking at school are their specialties. In each pantry we find whole grain foods provided by the bushel and ground in the hand-grist mill as needed. Each family possesses a home-grown garden, chickens, rabbits and fruit. In each instance, the mother sees her task to be the rearing of worthy and useful citizens; her duty to supply those foods which give health and vigor; her opportunity to guide the lives entrusted to her keeping to discriminate between values-true and false-and create a love for the simple life.

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